Area Wage Survey

Salt Lake City–Ogden, Utah, Metropolitan Area November 1988

U.S. Department of Labor
Elizabeth Dole, Secretary

Bureau of Labor Statistics
Janet L. Norwood, Commissioner
February 1989

Bulletin 3045-56

Contents

	Page
Introduction	2
Tables:	
Earnings, all establishments:	
A-1. Weekly earnings of office workers	3
A-2. Weekly earnings of professional and technical workers	5
A-3. Average weekly earnings of office, professional, and technical workers, by sex	7
A-4. Hourly earnings of maintenance, toolroom, and powerplant workers	8
A-5. Hourly earnings of material movement and custodial workers	10
A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex	10
A-7. Indexes of earnings and percent increases for selected occupational groups	11
A-8. Pay relationships in establishments with paired office clerical occupations	11
A-9. Pay relationships in establishments with paired professional and technical occupations	12
A-10. Pay relationships in establishments with paired maintenance, toolroom, and powerplant occupations	12
Tables—Continued	
A-11. Pay relationships in establishments with paired material movement and custodial occupations	12
Establishment practices and employee benefits:	
B-1. Minimum entrance salaries for inexperienced typists and clerks	13
B-2. Late-shift pay provisions for full-time manufacturing production and related workers	14
B-3. Scheduled weekly hours and days of full-time first-shift workers	15
B-4. Annual paid holidays for full-time workers	16
B-5. Paid vacation provisions for full-time workers	17
B-6. Insurance, health, and retirement plans offered to full-time workers	20
B-7. Health plan participation by full-time workers	21
B-8. Other selected benefits for full-time workers	22
Appendixes:	
A. Scope and method of survey	24
B. Occupational descriptions	30

Introduction

The Bureau of Labor Statistics is restructuring its area wage survey program to reflect changes in the number and geographic boundaries of the Nation's metropolitan statistical areas. In place of annual studies of 70 areas, the new program, when fully implemented in 1990, will cover 32 areas on an annual basis and two groups of 29 areas in alternate years.

This is 1 of the 58 areas being surveyed once every two years. While occupational earnings are presented biennially (A-series tables), information on establishment practices and employee benefits (B-series tables) is presented every fourth year, when Bureau field representatives obtain such data during personal visits to respondents.

A major consideration in the area wage survey program is the need to describe the level and movement of wages in a variety of labor markets, through the analysis of (1) the level and distribution of wages by occupation, and (2) the movement of wages by occupational category and skill level. The program develops information that may be used for many purposes, including wage and salary administration, collective bargaining, and assistance in determining plant location. Survey results also are used by the U.S. Department of Labor to make wage determinations under the Service Contract Act of 1965.

Earnings

Tables A-1 through A-6 provide estimates of straight-time weekly or hourly earnings for workers in occupations common to a variety of manufacturing and nonmanufacturing industries. Where posssible, occupations with related duties (e.g. accounting clerks and payroll clerks) are clustered to facilitate comparison. The occupations are defined in appendix B.

Table A-7 provides indexes and percent changes in average hourly earnings for office clerical workers, electronic data processing workers, industrial nurses, skilled maintenance trades workers, and unskilled plant workers. Where possible, data are presented for all industries and for manufacturing and nonmanufacturing separately. Data are not presented for skilled maintenance workers in nonmanufacturing because the number of workers employed in this occupational group in nonmanufacturing is too small to warrant separate presentation. This table provides a measure of wage trends after elimination of changes in average earnings caused by employment shifts among establishments as well as turnover of establishments included in survey samples. For further details, see appendix A.

Tables A-8 through A-11 provide measures of pay relationships in establishments. These measures may differ considerably from the pay relationships of overall area averages published in tables A-1 through A-6. See appendix A for details.

Establishment practices and benefits

The B-series tables present information on minimum entrance salaries for inexperienced typists and clerks; late-shift pay provisions and practices for production and related workers in manufacturing; and data separately for production and related workers and office workers on scheduled weekly hours and days of first-shift workers; paid holidays; paid vacations; insurance, health, and retirement plan provisions; health plan participation; and other selected benefits.

Appendixes

Appendix A describes the methods and concepts used in the area wage survey program. It provides information on the scope of the area survey, the area's industrial composition in manufacturing, and labor-management agreement coverage.

Appendix B provides job descriptions used by Bureau field representatives to classify workers by occupation.

NOTE: Tooele County, UT, has been deleted from the geographic scope of the Salt Lake City–Ogden Area Wage Survey. See appendix table 1, footnote 1, for the metropolitan area definition.

Changes in geographic scope and the introduction of improved statistical methods, particularly in the selection and weighting of sample establishments, may magnify differences that normally occur between the results of two sample surveys. To lessen the effects of such changes, analyses of trends should be limited to the data shown in table A-7. (See appendix A for details.)

Table A-1. Weekly earnings of office workers in Salt Lake City-Ogden, UT, November 1988

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[2]			Number of workers receiving straight-time weekly earnings (in dollars) of —																					
			Mean[3]	Median[3]	Middle range[3]	120 and under 140	140 – 160	160 – 180	180 – 200	200 – 220	220 – 240	240 – 260	260 – 280	280 – 300	300 – 320	320 – 340	340 – 360	360 – 380	380 – 400	400 – 440	440 – 480	480 – 520	520 – 560	560 – 600	600 – 640	640 and over
Secretarial and keyboarding occupations																											
Secretaries	1,283	40.0	383.00	378.00	309.50– 441.00	–	–	–	1	21	41	63	70	63	131	62	89	105	125	186	139	86	28	34	17	22
Manufacturing	412	40.0	373.00	365.00	308.00– 420.00	–	–	–	–	14	3	18	25	22	52	28	36	32	47	55	28	22	7	15	2	6
Nonmanufacturing	871	40.0	388.00	388.00	310.00– 454.00	–	–	–	1	7	38	45	45	41	79	34	53	73	78	131	111	64	21	19	15	16
Transportation and utilities	205	40.0	469.50	460.50	420.50– 502.50	–	–	–	–	–	–	–	–	–	2	1	–	4	22	41	66	34	16	6	4	9
Secretaries I	180	40.0	274.00	267.00	244.50– 300.00	–	–	–	–	17	27	43	20	20	32	11	7	1	–	–	1	–	1	–	–	–
Manufacturing	56	40.0	264.00	256.50	219.00– 287.50	–	–	–	–	14	2	15	5	7	9	2	1	1	–	–	–	–	–	–	–	–
Nonmanufacturing	124	40.0	278.50	270.50	246.00– 303.00	–	–	–	–	3	25	28	15	13	23	9	6	–	–	–	1	–	1	–	–	–
Secretaries II	226	39.5	344.00	340.00	288.50– 387.50	–	–	–	1	2	7	8	34	12	34	12	15	41	17	18	19	1	–	4	–	1
Manufacturing	79	40.0	313.50	307.00	276.00– 340.00	–	–	–	–	–	1	3	17	10	19	7	8	7	4	2	–	1	–	–	–	–
Nonmanufacturing	147	39.5	360.50	361.00	310.00– 403.00	–	–	–	1	2	6	5	17	2	15	5	7	34	13	16	19	–	–	4	–	1
Transportation and utilities	54	40.0	435.50	429.00	396.00– 460.50	–	–	–	–	–	–	–	–	–	1	1	–	2	13	16	16	–	–	4	–	1
Secretaries III	657	40.0	398.50	395.00	346.00– 448.00	–	–	–	–	2	7	11	12	28	53	33	48	58	94	139	79	64	16	12	3	–
Manufacturing	216	40.0	398.50	392.50	340.00– 436.00	–	–	–	–	–	–	–	3	5	24	19	22	18	35	41	17	15	5	12	–	–
Nonmanufacturing	441	40.0	398.50	402.50	347.00– 452.50	–	–	–	–	2	7	11	9	23	29	14	26	38	59	98	62	49	11	–	3	–
Transportation and utilities	113	40.0	463.00	464.00	428.00– 499.50	–	–	–	–	–	–	–	–	–	1	–	–	2	9	24	37	30	8	–	2	–
Secretaries IV	201	40.0	455.50	446.00	374.00– 511.50	–	–	–	–	–	–	1	4	3	12	6	19	7	14	27	38	20	9	17	10	14
Manufacturing	59	40.0	458.00	436.50	392.00– 497.00	–	–	–	–	–	–	–	–	–	–	–	5	6	8	11	11	6	2	3	1	* 6
Nonmanufacturing	142	40.0	454.50	449.00	353.00– 533.00	–	–	–	–	–	–	1	4	3	12	6	14	1	6	16	27	14	7	14	9	8
Transportation and utilities	25	40.0	492.50	466.00	449.00– 533.00	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	12	3	7	1	–	1
Typists	161	40.0	265.00	242.50	214.50– 306.00	–	–	–	2	48	17	33	11	7	6	4	14	19	–	–	–	–	–	–	–	–
Manufacturing	45	40.0	257.50	240.00	231.00– 295.50	–	–	–	–	5	9	13	5	5	4	2	–	2	–	–	–	–	–	–	–	–
Nonmanufacturing	116	40.0	268.00	254.00	214.50– 354.00	–	–	–	2	43	8	20	6	2	2	2	14	17	–	–	–	–	–	–	–	–
Typists I	130	40.0	266.00	241.00	214.50– 333.00	–	–	–	2	48	9	22	7	3	4	4	14	17	–	–	–	–	–	–	–	–
Nonmanufacturing	111	40.0	268.50	245.50	214.50– 354.00	–	–	–	2	43	8	15	6	2	2	2	14	17	–	–	–	–	–	–	–	–
Typists II	31	40.0	261.00	259.00	231.00– 295.50	–	–	–	–	–	8	11	4	4	2	–	–	2	–	–	–	–	–	–	–	–
Word processors	92	40.0	310.50	294.50	261.00– 345.00	–	–	–	–	2	–	20	17	11	6	9	6	4	3	7	5	–	–	–	–	–
Nonmanufacturing	82	40.0	308.50	288.50	257.50– 340.00	–	–	–	–	2	–	20	15	11	7	6	4	2	3	7	5	–	–	–	–	–
Word processors I	50	40.0	285.50	278.00	254.00– 313.00	–	–	–	–	1	–	15	10	8	6	6	2	2	–	–	–	–	–	–	–	–
Nonmanufacturing	48	40.0	285.00	278.00	253.50– 312.00	–	–	–	–	1	–	15	9	8	5	6	2	2	–	–	–	–	–	–	–	–
Word processors II	42	40.0	340.50	338.00	277.00– 405.00	–	–	–	–	1	–	5	7	3	2	3	4	2	3	7	5	–	–	–	–	–
Nonmanufacturing	34	40.0	341.00	321.50	277.00– 413.00	–	–	–	–	1	–	5	6	3	2	–	2	–	3	7	5	–	–	–	–	–
Key entry operators	824	40.0	262.50	255.00	234.00– 289.00	–	2	15	9	39	234	132	156	113	37	40	29	8	2	7	–	1	–	–	–	–
Manufacturing	94	40.0	281.50	278.00	260.00– 304.50	–	–	–	–	5	5	8	42	9	9	4	7	5	–	–	–	–	–	–	–	–
Nonmanufacturing	730	40.0	260.00	250.50	234.00– 286.00	–	2	15	9	34	229	124	114	104	28	36	22	3	2	7	–	1	–	–	–	–
Transportation and utilities	31	40.0	307.00	244.00	237.00– 436.50	–	–	–	–	–	12	6	–	1	1	–	2	1	–	7	–	1	–	–	–	–
Key entry operators I	408	40.0	260.00	260.00	236.00– 280.00	–	2	15	8	22	56	79	123	55	17	19	7	4	–	–	–	1	–	–	–	–
Manufacturing	77	40.0	278.50	278.00	260.00– 295.00	–	–	–	–	4	5	8	35	7	7	3	5	3	–	–	–	–	–	–	–	–
Nonmanufacturing	331	40.0	256.00	260.00	236.00– 277.50	–	2	15	8	18	51	71	88	48	10	16	2	1	–	–	–	1	–	–	–	–
Key entry operators II	416	40.0	264.50	246.00	234.00– 290.00	–	–	–	1	17	178	53	33	58	20	21	22	4	2	7	–	–	–	–	–	–
Nonmanufacturing	399	40.0	263.50	244.00	234.00– 290.00	–	–	–	1	16	178	53	26	56	18	20	20	2	2	7	–	–	–	–	–	–

See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Salt Lake City-Ogden, UT, November 1988 —Continued

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[2]			Number of workers receiving straight-time weekly earnings (in dollars) of —																						
			Mean[3]	Median[3]	Middle range[3]	120 and under 140	140 – 160	160 – 180	180 – 200	200 – 220	220 – 240	240 – 260	260 – 280	280 – 300	300 – 320	320 – 340	340 – 360	360 – 380	380 – 400	400 – 440	440 – 480	480 – 520	520 – 560	560 – 600	600 – 640	640 and over
Other clerical occupations																												
Accounting clerks	1,551	40.0	299.00	285.00	243.50– 340.00	–	4	38	102	69	109	232	143	214	132	118	55	84	73	54	69	21	20	14	–	–
Manufacturing	386	40.0	302.50	289.50	258.00– 341.00	–	–	–	12	18	5	72	41	66	35	37	16	28	35	14	4	1	1	1	–	–
Nonmanufacturing	1,165	40.0	297.50	280.00	240.00– 338.00	–	4	38	90	51	104	160	102	143	97	81	39	56	38	40	65	20	19	13	–	–
Transportation and utilities	249	40.0	398.50	407.50	327.50– 448.00	–	–	1	4	1	13	18	4	13	3	11	11	26	10	26	61	19	16	12	–	–
Accounting clerks II	1,092	40.0	275.00	269.00	232.50– 303.50	–	4	38	96	47	93	225	116	171	79	55	25	44	34	12	53	–	–	–	–	–
Manufacturing	246	40.0	290.00	280.50	250.00– 316.00	–	–	–	6	–	4	72	23	57	23	25	5	13	16	2	–	–	–	–	–	–
Nonmanufacturing	846	40.0	270.50	260.00	220.00– 300.00	–	4	38	90	47	89	153	93	114	56	30	20	31	18	10	53	–	–	–	–	–
Transportation and utilities	137	40.0	355.00	374.50	258.50– 448.00	–	–	1	4	1	13	18	4	7	1	4	8	15	2	7	52	–	–	–	–	–
Accounting clerks III	264	40.0	371.00	335.00	315.50– 403.00	–	–	–	–	–	1	–	16	19	51	53	19	28	10	20	9	5	20	13	–	–
Manufacturing	72	40.0	331.00	324.50	288.50– 360.00	–	–	–	–	–	1	–	14	8	12	12	6	8	2	5	3	–	1	–	–	–
Nonmanufacturing	192	40.0	386.00	340.00	320.00– 415.50	–	–	–	–	–	–	–	2	11	39	41	13	20	8	15	6	5	19	13	–	–
Transportation and utilities	77	40.0	457.00	431.50	375.00– 553.00	–	–	–	–	–	–	–	–	–	2	7	3	11	8	9	5	4	16	12	–	–
Accounting clerks IV	139	40.0	374.00	384.00	291.00– 416.50	–	–	–	–	–	12	–	5	18	–	8	9	12	29	22	7	16	–	1	–	–
Manufacturing	43	40.0	382.50	384.00	369.00– 398.00	–	–	–	–	–	–	–	4	–	–	–	5	7	17	7	1	1	–	1	–	–
Nonmanufacturing	96	40.0	370.50	380.50	287.00– 437.00	–	–	–	–	–	12	–	1	18	–	8	4	5	12	15	6	15	–	–	–	–
Transportation and utilities	35	40.0	441.50	458.00	416.50– 510.50	–	–	–	–	–	–	–	–	6	–	–	–	–	–	10	4	15	–	–	–	–
Payroll clerks	270	40.0	312.00	292.00	250.00– 363.00	–	–	–	3	9	34	38	19	39	10	25	23	32	7	10	6	12	1	–	2	
Manufacturing	122	40.0	328.00	320.00	280.00– 370.00	–	–	–	–	–	3	9	13	28	5	9	9	29	5	7	5	–	–	–	–	
Nonmanufacturing	148	40.0	299.50	271.00	230.00– 341.00	–	–	–	3	9	31	29	6	11	5	16	14	3	2	3	1	12	1	–	2	
Transportation and utilities	54	40.0	334.50	333.50	270.00– 480.00	–	–	–	3	9	9	3	–	–	2	1	7	2	1	2	1	11	1	–	2	
File clerks	105	40.0	200.00	190.00	182.00– 222.00	13	–	11	41	13	10	2	8	7	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	102	40.0	199.50	190.00	182.00– 222.00	13	–	11	40	12	10	2	8	6	–	–	–	–	–	–	–	–	–	–	–	–
File clerks I	54	40.0	184.50	184.50	170.50– 200.00	13	–	3	22	9	2	2	2	1	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	51	40.0	182.00	184.50	134.00– 200.00	13	–	3	21	8	2	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Messengers	56	40.0	205.00	200.00	200.00– 201.50	–	1	1	4	41	7	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	26	40.0	211.00	201.50	201.50– 230.50	–	1	1	4	11	7	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Order clerks	303	40.0	243.00	240.00	214.00– 260.00	–	–	73	1	2	51	70	47	7	10	19	9	4	4	–	2	–	2	2	–	–
Manufacturing	219	40.0	243.50	224.00	163.00– 298.00	–	–	72	–	–	43	14	31	7	10	19	9	4	4	–	2	–	2	2	–	–
Order clerks I	187	40.0	215.00	220.00	160.00– 246.00	–	–	73	1	2	51	22	23	5	1	–	3	3	3	–	–	–	–	–	–	–
Manufacturing	167	40.0	214.00	220.00	160.00– 249.50	–	–	72	–	–	43	14	23	5	1	–	3	3	3	–	–	–	–	–	–	–
Order clerks II	116	40.0	288.00	260.00	240.00– 320.00	–	–	–	–	–	–	48	24	2	9	19	6	1	1	–	2	–	2	2	–	–
Manufacturing	52	40.0	338.50	320.00	306.00– 340.00	–	–	–	–	–	–	–	8	2	9	19	6	1	1	–	2	–	2	2	–	–
Receptionists	96	40.0	227.00	220.00	210.00– 260.00	–	–	11	8	21	28	2	18	1	4	–	2	1	–	–	–	–	–	–	–	–
Nonmanufacturing	86	40.0	222.00	220.00	210.00– 234.00	–	–	11	8	20	28	1	12	1	3	–	1	1	–	–	–	–	–	–	–	–
Switchboard operators	144	40.0	222.00	220.00	191.50– 240.00	19	–	1	32	17	31	19	5	4	9	1	–	1	1	3	1	–	–	–	–	–
Nonmanufacturing	134	40.0	217.00	218.50	190.00– 240.00	19	–	1	32	16	31	19	2	3	5	1	–	–	1	3	1	–	–	–	–	–
Switchboard operator-receptionists	251	40.0	247.00	240.00	214.50– 268.00	–	1	8	29	47	30	63	24	16	3	4	6	18	2	–	–	–	–	–	–	–
Manufacturing	93	40.0	259.50	247.00	220.00– 280.00	–	–	6	1	13	14	26	9	4	3	4	1	12	–	–	–	–	–	–	–	–
Nonmanufacturing	158	40.0	240.00	231.00	211.50– 260.50	–	1	2	28	34	16	37	15	12	–	–	5	6	2	–	–	–	–	–	–	–

* All workers were at $640 to $680.

Also see footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Salt Lake City-Ogden, UT, November 1988

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[2]			Number of workers receiving straight-time weekly earnings (in dollars) of —																					
			Mean[2]	Median[2]	Middle range[2]	200 and under 240	240 – 280	280 – 320	320 – 360	360 – 400	400 – 440	440 – 480	480 – 520	520 – 560	560 – 600	600 – 640	640 – 680	680 – 720	720 – 760	760 – 800	800 – 840	840 – 880	880 – 920	920 – 960	960 – 1040	1040 – 1120
Computer systems analysts	644	40.0	708.00	694.50	594.50– 813.00	–	–	–	–	–	8	19	34	30	80	55	68	59	51	62	43	52	36	14	27	6
Manufacturing	93	40.0	759.00	740.00	669.00– 870.00	–	–	–	–	–	2	–	2	4	3	7	10	10	12	5	10	6	11	1	9	1
Nonmanufacturing	551	40.0	699.50	691.00	588.50– 803.00	–	–	–	–	–	6	19	32	26	77	48	58	49	39	57	33	46	25	13	18	5
Computer systems analysts I	196	40.0	557.50	563.00	500.50– 598.00	–	–	–	–	–	8	19	32	30	60	24	15	4	3	1	–	–	–	–	–	–
Manufacturing	25	40.0	604.00	625.50	526.00– 670.50	–	–	–	–	–	2	–	2	4	3	3	5	4	1	1	–	–	–	–	–	–
Nonmanufacturing	171	40.0	550.50	563.00	499.00– 592.00	–	–	–	–	–	6	19	30	26	57	21	10	–	2	–	–	–	–	–	–	–
Computer systems analysts II	236	40.0	709.50	693.00	650.50– 779.00	–	–	–	–	–	–	–	2	–	19	23	51	41	23	41	22	12	2	–	–	–
Manufacturing	30	40.0	748.50	748.00	676.50– 824.50	–	–	–	–	–	–	–	–	–	–	4	5	3	4	3	4	5	2	–	–	–
Nonmanufacturing	206	40.0	703.50	692.50	650.00– 773.00	–	–	–	–	–	–	–	2	–	19	19	46	38	19	38	18	7	–	–	–	–
Computer systems analysts III	161	40.0	825.50	822.00	741.00– 884.00	–	–	–	–	–	–	–	–	–	1	8	2	14	24	18	19	31	17	7	15	5
Manufacturing	38	40.0	868.50	887.00	759.50– 961.00	–	–	–	–	–	–	–	–	–	–	–	–	3	7	1	6	1	9	1	9	1
Nonmanufacturing	123	40.0	812.00	806.50	740.00– 870.00	–	–	–	–	–	–	–	–	–	1	8	2	11	17	17	13	30	8	6	6	4
Computer programmers	511	40.0	537.50	516.00	462.50– 624.00	–	11	4	27	11	26	84	94	25	56	63	56	31	10	5	2	4	–	–	2	–
Manufacturing	85	40.0	558.00	563.50	479.00– 638.00	–	–	1	2	4	4	11	9	9	11	13	12	3	3	2	1	–	–	–	–	–
Nonmanufacturing	426	40.0	533.50	509.50	461.50– 624.00	–	11	3	25	7	22	73	85	16	45	50	44	28	7	3	1	4	–	–	2	–
Transportation and utilities	48	40.0	503.00	486.00	473.50– 607.00	–	3	3	3	–	–	6	14	2	4	10	1	–	1	–	1	–	–	–	–	–
Computer programmers I	62	40.0	376.50	350.50	349.50– 415.50	–	11	1	22	10	4	4	8	–	2	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	55	40.0	379.00	350.50	349.50– 464.50	–	11	–	20	6	4	4	8	–	2	–	–	–	–	–	–	–	–	–	–	–
Computer programmers II	212	40.0	494.50	485.00	445.50– 536.50	–	–	3	5	1	22	74	53	9	18	22	1	4	–	–	–	–	–	–	–	–
Manufacturing	39	40.0	521.50	500.00	441.50– 585.50	–	–	–	–	–	4	11	6	3	7	7	1	–	–	–	–	–	–	–	–	–
Nonmanufacturing	173	40.0	488.00	472.50	445.50– 514.50	–	–	3	5	1	18	63	47	6	11	15	–	4	–	–	–	–	–	–	–	–
Computer programmers III	217	40.0	607.00	624.00	542.50– 665.50	–	–	–	–	–	–	6	33	16	35	35	54	27	8	3	–	–	–	–	–	–
Manufacturing	34	40.0	611.00	626.00	529.50– 672.00	–	–	–	–	–	–	–	3	6	4	6	11	3	1	–	–	–	–	–	–	–
Nonmanufacturing	183	40.0	606.50	624.00	542.50– 662.50	–	–	–	–	–	–	6	30	10	31	29	43	24	7	3	–	–	–	–	–	–
Computer operators	520	40.0	376.00	344.00	302.50– 407.00	32	41	116	134	60	18	16	4	47	2	49	1	–	–	–	–	–	–	–	–	–
Manufacturing	118	40.0	355.50	347.00	306.00– 389.50	–	4	35	32	23	12	7	2	2	–	–	1	–	–	–	–	–	–	–	–	–
Nonmanufacturing	402	40.0	382.00	343.00	300.00– 460.00	32	37	81	102	37	6	9	2	45	2	49	–	–	–	–	–	–	–	–	–	–
Computer operators I	63	40.0	262.50	250.50	239.50– 284.00	23	17	16	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	54	40.0	256.50	250.50	239.50– 284.00	23	15	12	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Computer operators II	215	40.0	343.50	318.50	300.00– 360.00	9	18	82	51	20	5	1	2	27	–	–	–	–	–	–	–	–	–	–	–	–
Manufacturing	66	40.0	331.50	327.00	305.00– 352.50	–	2	27	21	11	4	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	149	40.0	349.00	315.50	299.50– 360.00	9	16	55	30	9	1	–	2	27	–	–	–	–	–	–	–	–	–	–	–	–
Computer operators III	205	40.0	423.50	371.00	345.00– 521.00	–	6	18	76	30	13	10	–	1	2	49	–	–	–	–	–	–	–	–	–	–
Manufacturing	34	40.0	380.00	377.00	354.00– 415.00	–	–	4	8	12	8	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Nonmanufacturing	171	40.0	432.00	356.50	343.00– 624.50	–	6	14	68	18	5	9	–	–	2	49	–	–	–	–	–	–	–	–	–	–
Drafters	176	40.0	405.50	416.00	350.00– 449.50	–	16	7	26	30	43	25	16	8	2	2	1	–	–	–	–	–	–	–	–	–
Manufacturing	135	40.0	400.50	417.00	342.50– 447.50	–	16	6	19	18	38	18	11	6	1	1	1	–	–	–	–	–	–	–	–	–
Drafters III	118	40.0	376.00	387.00	340.00– 428.00	–	16	5	18	30	37	8	3	1	–	–	–	–	–	–	–	–	–	–	–	–
Manufacturing	91	40.0	369.00	387.00	340.00– 428.00	–	16	5	12	18	36	3	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Drafters IV	37	40.0	482.50	475.00	447.50– 516.50	–	–	–	–	–	3	17	11	3	2	1	–	–	–	–	–	–	–	–	–	–
Manufacturing	26	40.0	478.50	471.00	447.50– 513.50	–	–	–	–	–	–	15	8	2	1	–	–	–	–	–	–	–	–	–	–	–

See footnotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Salt Lake City-Ogden, UT, November 1988 —Continued

Occupation and industry division	Number of workers	Average weekly hours[1] (standard)	Weekly earnings (in dollars)[2]			Number of workers receiving straight-time weekly earnings (in dollars) of —																			
			Mean[2]	Median[3]	Middle range[4]	200 and under 240	240 – 280	280 – 320	320 – 360	360 – 400	400 – 440	440 – 480	480 – 520	520 – 560	560 – 600	600 – 640	640 – 680	680 – 720	720 – 760	760 – 800	800 – 840	840 – 880	880 – 920	920 – 960	960 – 1040	1040 – 1120
Electronics technicians	617	40.0	505.00	510.00	387.00– 603.00	–	1	38	62	71	51	49	46	30	61	139	15	48	2	1	–	5	–	–	–	–
Manufacturing	338	40.0	434.00	412.00	358.00– 505.50	–	1	27	60	62	42	44	41	18	26	7	2	6	2	–	–	–	–	–	–	–
Nonmanufacturing	279	40.0	591.00	603.00	593.50– 603.00	–	–	11	2	9	9	5	5	12	35	132	13	40	–	1	–	5	–	–	–	–
Transportation and utilities	254	40.0	598.00	603.00	596.00– 603.00	–	–	6	2	3	8	3	3	12	34	132	11	40	–	–	–	–	–	–	–	–
Electronics technicians I	70	40.0	338.00	318.00	303.50– 360.00	–	1	35	13	13	2	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Manufacturing	50	40.0	336.50	319.50	303.00– 360.00	–	1	24	11	8	1	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Electronics technicians II	350	40.0	491.50	484.00	386.50– 603.00	–	–	3	49	49	43	26	18	11	24	126	1	–	–	–	–	–	–	–	–	–
Manufacturing	179	40.0	404.00	389.00	357.50– 443.00	–	–	3	49	45	35	22	15	10	–	–	–	–	–	–	–	–	–	–	–	–
Electronics technicians III	197	40.0	588.00	582.00	510.00– 699.50	–	–	–	–	9	6	17	28	19	37	13	14	46	2	1	–	5	–	–	–	–
Manufacturing	109	40.0	528.50	517.50	462.00– 583.00	–	–	–	–	9	6	17	26	8	26	7	2	6	2	–	–	–	–	–	–	–
Nonmanufacturing	88	40.0	662.00	699.50	582.00– 717.00	–	–	–	–	–	–	–	2	11	11	6	12	40	–	1	–	5	–	–	–	–
Transportation and utilities	81	40.0	649.50	672.00	582.00– 717.00	–	–	–	–	–	–	–	2	11	11	6	11	40	–	–	–	–	–	–	–	–

See footnotes at end of tables.

Table A-3. Average weekly earnings of office, professional, and technical workers, by sex, in Salt Lake City-Ogden, UT, November 1988

Sex,[4] occupation, and industry division	Number of workers	Average (mean[5])	
		Weekly hours[1] (standard)	Weekly earnings (in dollars)[2]
Office occupations – men			
Key entry operators	81	40.0	243.50
Nonmanufacturing	77	40.0	241.00
Key entry operators I	38	40.0	228.00
Nonmanufacturing	34	40.0	220.00
Accounting clerks:			
Manufacturing	37	40.0	326.00
Office occupations – women			
Secretaries	1,277	40.0	382.50
Manufacturing	412	40.0	373.00
Nonmanufacturing	865	40.0	387.00
Transportation and utilities	200	40.0	466.00
Secretaries I	178	40.0	272.50
Manufacturing	56	40.0	264.00
Nonmanufacturing	122	40.0	276.00
Secretaries II	225	39.5	342.50
Manufacturing	79	40.0	313.50
Nonmanufacturing	146	39.5	358.50
Transportation and utilities	53	40.0	431.00
Secretaries III	655	40.0	398.00
Manufacturing	216	40.0	398.50
Nonmanufacturing	439	40.0	397.50
Transportation and utilities	111	40.0	461.50
Secretaries IV	200	40.0	454.50
Manufacturing	59	40.0	458.00
Nonmanufacturing	141	40.0	452.50
Typists	159	40.0	265.00
Manufacturing	45	40.0	257.50
Nonmanufacturing	114	40.0	267.50
Typists I	128	40.0	266.00
Nonmanufacturing	109	40.0	268.00
Typists II	31	40.0	261.00
Word processors	91	40.0	311.00
Nonmanufacturing	81	40.0	309.00
Word processors I	49	40.0	286.00
Nonmanufacturing	47	40.0	285.50
Word processors II	42	40.0	340.50
Nonmanufacturing	34	40.0	341.00
Key entry operators	736	40.0	263.00
Manufacturing	90	40.0	281.00
Nonmanufacturing	646	40.0	260.50
Key entry operators I	370	40.0	263.50
Manufacturing	73	40.0	278.00
Nonmanufacturing	297	40.0	260.00
Key entry operators II	366	40.0	262.50
Nonmanufacturing	349	40.0	261.00
Accounting clerks	1,313	40.0	285.50
Manufacturing	349	40.0	300.00
Nonmanufacturing	964	40.0	280.50
Accounting clerks II	957	40.0	263.00
Manufacturing	221	40.0	290.00
Nonmanufacturing	736	40.0	255.00
Accounting clerks III	208	40.0	363.50
Manufacturing	65	40.0	326.00
Nonmanufacturing	143	40.0	380.50
Transportation and utilities	64	40.0	448.50
Accounting clerks IV	99	40.0	365.00
Manufacturing	38	40.0	374.00
Nonmanufacturing	61	40.0	359.00
Payroll clerks	257	40.0	309.50
Manufacturing	119	40.0	325.00
Nonmanufacturing	138	40.0	296.50
Transportation and utilities	54	40.0	334.50
File clerks:			
File clerks I	47	40.0	184.50
Nonmanufacturing	45	40.0	181.50
Order clerks	258	40.0	240.00
Manufacturing	198	40.0	240.00
Order clerks I	170	40.0	214.50
Manufacturing	150	40.0	213.00
Order clerks II	88	40.0	289.50
Manufacturing	48	40.0	324.50
Receptionists	96	40.0	227.00
Nonmanufacturing	86	40.0	222.00
Switchboard operators	129	40.0	224.00
Nonmanufacturing	119	40.0	218.50
Switchboard operator-receptionists	251	40.0	247.00
Manufacturing	93	40.0	259.50
Nonmanufacturing	158	40.0	240.00
Professional and technical occupations – men			
Computer systems analysts:			
Manufacturing	66	40.0	766.00
Computer systems analysts III	114	40.0	814.50
Manufacturing	30	40.0	853.00
Nonmanufacturing	84	40.0	800.50
Computer programmers	407	40.0	528.00
Nonmanufacturing	347	40.0	522.50
Transportation and utilities	36	40.0	489.50
Computer programmers I	49	40.0	365.00
Nonmanufacturing	47	40.0	366.50
Computer programmers II	182	40.0	488.50
Manufacturing	28	40.0	516.00
Nonmanufacturing	154	40.0	483.50
Computer programmers III	161	40.0	601.50
Nonmanufacturing	133	40.0	600.00
Drafters	139	40.0	397.50
Drafters III	102	40.0	375.50
Manufacturing	78	40.0	368.50
Electronics technicians:			
Manufacturing	315	40.0	439.00
Electronics technicians I	53	40.0	342.00
Manufacturing	47	40.0	338.50
Electronics technicians II			
Manufacturing	160	40.0	408.00
Electronics technicians III	196	40.0	588.50
Manufacturing	108	40.0	528.00
Nonmanufacturing	88	40.0	662.00
Transportation and utilities	81	40.0	649.50
Professional and technical occupations – women			
Computer programmers:			
Nonmanufacturing	76	40.0	590.00
Computer programmers II	26	40.0	526.50

See footnotes at end of tables.

Table A-4. Hourly earnings of maintenance, toolroom, and powerplant workers in Salt Lake City-Ogden, UT, November 1988

Occupation and industry division	Number of workers	Hourly earnings (in dollars)[2]			Number of workers receiving straight-time hourly earnings (in dollars) of —																							
		Mean[1]	Median[2]	Middle range[3]	Under 6.50	6.50 and under 7.00	7.00 – 7.50	7.50 – 8.00	8.00 – 8.50	8.50 – 9.00	9.00 – 9.50	9.50 – 10.00	10.00 – 10.50	10.50 – 11.00	11.00 – 11.50	11.50 – 12.00	12.00 – 12.50	12.50 – 13.00	13.00 – 13.50	13.50 – 14.00	14.00 – 14.50	14.50 – 15.00	15.00 – 15.50	15.50 – 16.00	16.00 – 17.00	17.00 – 18.00	18.00 and over
Maintenance carpenters	49	12.29	12.98	11.25–13.01	–	–	–	–	–	–	–	1	2	–	19	1	–	12	2	12	–	–	–	–	–	–	
Manufacturing	29	12.24	11.25	11.25–13.72	–	–	–	–	–	–	–	–	1	–	15	1	–	–	–	12	–	–	–	–	–	–	
Maintenance electricians	157	12.73	13.09	12.00–13.41	–	–	–	–	–	–	–	11	8	12	6	2	27	8	53	12	1	4	–	1	10	2	
Manufacturing	134	12.37	12.61	11.45–13.41	–	–	–	–	–	–	–	10	6	12	6	2	27	6	49	10	1	4	–	1	–	–	
Maintenance machinists	70	12.31	12.00	11.46–13.09	–	–	–	–	–	–	–	–	8	–	13	4	15	5	12	4	2	6	–	1	–	–	
Manufacturing	70	12.31	12.00	11.46–13.09	–	–	–	–	–	–	–	–	8	–	13	4	15	5	12	4	2	6	–	1	–	–	
Maintenance mechanics (machinery)	330	11.43	11.27	11.25–11.58	–	–	–	–	–	–	14	17	25	24	166	20	10	11	26	2	3	–	6	–	6	–	
Manufacturing	311	11.44	11.27	11.25–11.58	–	–	–	–	–	–	14	17	13	24	164	19	8	11	26	2	1	–	6	–	6	–	
Motor vehicle mechanics	552	13.50	14.11	11.86–15.65	–	–	–	–	8	1	20	25	26	13	28	37	33	53	11	19	30	57	33	135	2	–	2
Manufacturing	87	11.32	11.95	10.50–12.28	–	–	–	–	8	–	6	2	3	5	15	16	23	–	–	5	–	4	–	–	–	–	
Nonmanufacturing	465	13.90	14.93	12.50–15.65	–	–	–	–	–	1	14	23	23	8	13	21	10	53	11	14	30	53	33	135	2	–	2
Transportation and utilities	417	14.18	14.93	12.50–15.71	–	–	–	–	–	1	14	23	9	3	3	12	8	53	8	10	29	53	33	135	2	–	2
General maintenance workers	478	7.94	7.98	6.40– 9.50	* 120	49	49	41	37	31	24	34	28	42	5	12	4	1	–	–	1	–	–	–	–	–	
Manufacturing	208	8.90	9.00	7.25–10.30	20	3	32	9	26	8	12	28	20	37	3	8	1	–	–	–	1	–	–	–	–	–	
Nonmanufacturing	270	7.21	6.50	5.85– 8.27	100	46	17	32	11	23	12	6	8	5	2	4	3	1	–	–	–	–	–	–	–	–	
Tool and die makers	121	13.63	13.59	12.80–15.00	–	–	–	–	–	–	–	–	6	1	13	–	1	17	17	19	14	2	12	10	8	1	
Manufacturing	121	13.63	13.59	12.80–15.00	–	–	–	–	–	–	–	–	6	1	13	–	1	17	17	19	14	2	12	10	8	1	

* Workers were distributed as follows: 15 at $4.50 to $5.00; 20 at $5.00 to $5.50; 50 at $5.50 to $6.00; and 35 at $6.00 to $6.50.

Also see footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Salt Lake City-Ogden, UT, November 1988

Occupation and industry division	Number of workers	Hourly earnings (in dollars)[1]			Number of workers receiving straight-time hourly earnings (in dollars) of —																					
		Mean[2]	Median[2]	Middle range[3]	3.35 and under 3.50	3.50 – 4.00	4.00 – 4.50	4.50 – 5.00	5.00 – 5.50	5.50 – 6.00	6.00 – 6.50	6.50 – 7.00	7.00 – 7.50	7.50 – 8.00	8.00 – 8.50	8.50 – 9.00	9.00 – 9.50	9.50 – 10.00	10.00 – 10.50	10.50 – 11.00	11.00 – 11.50	11.50 – 12.00	12.00 – 12.50	12.50 – 13.00	13.00 – 14.00	14.00 – 15.00	15.00 – 16.00
Truckdrivers	1,861	10.47	10.62	7.00–15.10	2	98	46	50	108	31	66	50	67	20	70	32	226	23	4	171	14	93	10	42	70	5	563
Manufacturing	366	10.03	10.98	9.25–10.99	-	-	-	9	4	19	8	4	3	4	13	21	23	1	-	170	-	85	-	2	-	-	-
Nonmanufacturing	1,495	10.58	9.33	6.75–15.10	2	98	46	41	104	12	58	46	64	16	57	11	203	22	4	1	14	8	10	40	70	5	563
Transportation and utilities	846	13.32	15.10	12.75–15.10	-	8	6	-	68	-	8	-	42	-	6	3	2	2	3	1	8	8	9	40	64	5	563
Truckdrivers, light truck	316	4.99	4.50	3.75– 5.35	2	98	46	34	70	11	32	1	2	5	-	1	-	2	-	1	7	4	-	-	-	-	-
Manufacturing	27	6.75	5.93	5.75– 7.46	-	-	-	6	-	8	4	1	2	2	-	-	-	-	-	-	-	4	-	-	-	-	-
Nonmanufacturing	289	4.82	4.35	3.75– 5.35	2	98	46	28	70	3	28	-	-	3	-	1	-	2	-	1	7	-	-	-	-	-	-
Truckdrivers, medium truck	222	10.76	9.85	7.00–15.10	-	-	-	4	12	11	14	11	20	4	-	26	7	6	1	-	-	-	3	3	20	-	80
Nonmanufacturing	195	11.14	13.59	7.00–15.10	-	-	-	1	12	8	14	11	20	4	-	6	6	6	1	-	-	-	3	3	20	-	80
Truckdrivers, heavy truck	654	11.74	11.59	8.00–15.73	-	-	-	12	26	8	20	35	17	10	43	1	2	1	1	110	1	73	-	5	26	1	256
Manufacturing	198	10.55	10.99	10.62–11.59	-	-	-	-	4	8	4	1	1	2	1	1	-	1	-	110	-	65	-	-	-	-	-
Nonmanufacturing	456	12.26	15.10	8.00–15.73	-	-	-	12	22	-	16	34	16	8	48	-	2	-	1	-	1	8	-	5	26	1	256
Truckdrivers, tractor-trailer	292	11.90	12.50	9.25–15.10	-	-	-	-	-	-	-	2	28	-	18	4	46	14	2	-	6	16	1	28	24	4	99
Manufacturing	54	9.75	9.25	8.40–11.55	-	-	-	-	-	-	-	2	-	-	12	-	22	-	-	-	-	16	-	2	-	-	-
Nonmanufacturing	238	12.39	13.59	9.44–15.10	-	-	-	-	-	-	-	-	28	-	6	4	24	14	2	-	6	-	1	26	24	4	99
Transportation and utilities	185	13.13	15.10	12.50–15.10	-	-	-	-	-	-	-	-	25	-	6	3	-	-	2	-	-	-	-	26	20	4	99
Shippers	267	6.40	5.43	5.00– 7.95	-	-	36	17	81	16	4	13	18	20	6	9	41	2	-	-	-	4	-	-	-	-	-
Manufacturing	206	6.85	6.75	5.00– 8.87	-	-	12	9	61	8	4	13	18	20	6	9	41	1	-	-	-	4	-	-	-	-	-
Receivers	213	7.46	8.22	6.00– 8.22	-	-	9	10	21	1	18	32	14	-	76	3	6	-	12	2	-	-	9	-	-	-	-
Manufacturing	147	7.40	8.22	6.39– 8.22	-	-	1	1	18	-	17	16	12	-	72	3	5	-	-	2	-	-	-	-	-	-	-
Nonmanufacturing	66	7.60	6.75	4.75–10.25	-	-	8	9	3	1	1	16	2	-	4	-	1	-	12	-	-	-	9	-	-	-	-
Shippers and receivers	179	8.27	8.48	6.15–10.39	-	-	-	-	8	18	23	15	13	1	12	17	12	2	38	6	11	3	-	-	-	-	-
Manufacturing	132	8.12	8.05	6.16–10.39	-	-	-	-	4	18	14	13	13	1	12	14	-	1	36	6	-	-	-	-	-	-	-
Warehousemen	537	8.02	8.18	6.67– 9.23	-	-	16	16	14	47	24	34	27	80	36	42	114	[r] 28	16	11	18	7	5	2	-	-	-
Manufacturing	152	7.95	7.65	6.71– 8.80	-	-	-	2	5	6	15	17	11	41	9	18	-	3	8	5	9	1	1	1	-	-	-
Nonmanufacturing	385	8.04	8.75	6.67– 9.23	-	-	16	14	9	41	9	17	16	39	27	24	114	25	8	6	9	6	4	1	-	-	-
Transportation and utilities	41	8.75	9.11	7.36– 9.11	-	-	-	-	-	-	-	-	13	1	3	1	18	-	-	-	2	1	1	1	-	-	-
Order fillers	948	7.55	7.75	5.25– 9.10	-	24	20	3	205	129	9	30	-	103	66	55	106	19	92	19	53	15	-	-	-	-	-
Nonmanufacturing	854	7.42	7.75	5.25– 9.10	-	24	20	1	201	125	9	30	-	55	66	55	98	19	92	19	25	15	-	-	-	-	-
Shipping packers	101	6.25	6.00	4.70– 7.38	-	-	22	9	3	7	20	6	14	8	3	1	-	8	-	-	-	-	-	-	-	-	-
Manufacturing	76	5.81	6.00	4.64– 6.96	-	-	18	8	2	6	20	4	12	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Material handling laborers	783	11.33	12.50	7.25–15.05	-	-	-	6	39	87	44	12	38	21	31	1	12	-	12	-	-	-	-	128	16	8	328
Manufacturing	215	6.23	6.15	5.50– 7.25	-	-	-	6	36	62	42	6	38	1	24	-	-	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing	568	13.27	15.05	12.50–15.05	-	-	-	-	3	25	2	6	-	20	7	1	12	-	12	-	-	-	-	128	16	8	328
Transportation and utilities	507	13.87	15.05	12.50–15.05	-	-	-	-	3	15	2	6	-	-	1	-	-	-	-	-	-	-	-	128	16	8	328
Forklift operators	370	8.99	9.33	7.95– 9.98	-	-	-	-	-	10	8	22	29	36	25	34	47	89	51	-	-	12	1	6	-	-	-
Manufacturing	204	8.70	8.78	7.95– 9.98	-	-	-	-	-	2	-	6	29	36	24	33	-	74	-	-	-	-	-	-	-	-	-
Nonmanufacturing	166	9.34	9.61	9.22–10.25	-	-	-	-	-	8	8	16	-	-	1	1	47	15	51	-	-	12	1	6	-	-	-
Guards	1,490	4.51	4.00	3.75– 5.15	-	551	399	72	285	69	30	25	25	6	19	-	2	1	1	-	2	1	2	-	-	-	-
Manufacturing	53	6.61	6.50	5.95– 7.20	-	-	-	-	3	17	3	12	8	5	4	-	1	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing	1,437	4.43	4.00	3.75– 5.00	-	551	399	72	282	52	27	13	17	1	15	-	1	1	1	-	2	1	2	-	-	-	-
Guards I	1,364	4.41	4.00	3.75– 5.00	-	551	366	72	221	86	23	22	22	4	16	-	1	-	-	-	-	-	-	-	-	-	-
Manufacturing	50	6.53	6.50	5.95– 7.13	-	-	-	-	3	17	3	12	8	3	3	-	1	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing	1,314	4.33	4.00	3.75– 4.85	-	551	366	72	218	49	20	10	14	1	13	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of tables.

Table A-5. Hourly earnings of material movement and custodial workers in Salt Lake City-Ogden, UT, November 1988 —Continued

Occupation and industry division	Number of workers	Hourly earnings (in dollars)[2]			Number of workers receiving straight-time hourly earnings (in dollars) of —																				
		Mean[2]	Median[2]	Middle range[2]	3.35 and under 3.50	3.50 – 4.00	4.00 – 4.50	4.50 – 5.00	5.00 – 5.50	5.50 – 6.00	6.00 – 6.50	6.50 – 7.00	7.00 – 7.50	7.50 – 8.00	8.00 – 8.50	8.50 – 9.00	9.00 – 9.50	9.50 – 10.00	10.00 – 10.50	10.50 – 11.00	11.00 – 11.50	11.50 – 12.00	12.00 – 12.50	12.50 – 13.00	13.00 – 14.00	14.00 – 15.00	15.0 – 16.0
Guards II	126	5.59	5.10	4.45– 5.25	–	–	33	–	64	3	7	3	3	2	3	–	1	1	1	–	2	1	2	–	–	–	
Nonmanufacturing	123	5.53	5.00	4.45– 5.25	–	–	33	–	64	3	7	3	3	–	2	–	1	1	1	–	2	1	2	–	–	–	
Janitors, porters, and cleaners	1,918	4.88	4.50	3.80– 5.25	296	212	333	502	117	85	52	162	13	27	44	12	16	1	7	23	8	6	2	–	–	–	
Manufacturing	135	6.77	5.79	5.00– 8.66	2	6	8	6	28	27	4	5	2	12	1	4	2	–	6	22	–	–	–	–	–	–	
Nonmanufacturing	1,783	4.73	4.50	3.75– 5.00	294	206	325	496	89	58	48	157	11	15	43	8	14	1	1	1	8	6	2	–	–	–	
Transportation and utilities	51	7.31	6.46	5.34– 7.79	–	–	–	–	13	11	2	2	–	13	–	–	–	–	–	–	4	4	2	–	–	–	

See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, toolroom, powerplant, material movement, and custodial workers, by sex, in Salt Lake City-Ogden, UT, November 1988

Sex,[4] occupation, and industry division	Number of workers	Average (mean[1]) hourly earnings (in dollars)[2]
Maintenance, toolroom, and powerplant occupations – men		
Maintenance carpenters	47	12.26
Manufacturing	29	12.24
Maintenance electricians	157	12.73
Manufacturing	134	12.37
Maintenance machinists	70	12.31
Manufacturing	70	12.31
Maintenance mechanics (machinery)	329	11.43
Manufacturing	310	11.45
Motor vehicle mechanics	520	13.23
Manufacturing	87	11.32
Nonmanufacturing	433	13.62
Transportation and utilities	385	13.89
General maintenance workers	458	7.86
Manufacturing	208	8.90
Nonmanufacturing	250	7.03
Tool and die makers	121	13.63
Manufacturing	121	13.63
Material movement and custodial occupations – men		
Truckdrivers	1,733	10.78
Manufacturing	359	10.12
Nonmanufacturing	1,374	10.96
Transportation and utilities	795	13.57
Truckdrivers, light truck	207	5.05
Nonmanufacturing	187	4.83
Truckdrivers, medium truck	216	10.71
Nonmanufacturing	189	11.10
Truckdrivers, heavy truck	653	11.74
Manufacturing	198	10.55
Nonmanufacturing	455	12.26
Truckdrivers, tractor-trailer	292	11.90
Manufacturing	54	9.75
Nonmanufacturing	238	12.39
Transportation and utilities	185	13.13
Shippers	206	6.52
Manufacturing	165	6.95
Receivers	178	7.17
Manufacturing	123	7.96
Nonmanufacturing	55	6.74
Shippers and receivers	135	8.71
Manufacturing	92	8.70
Warehousemen:	133	7.91
Manufacturing	34	8.86
Nonmanufacturing:	46	5.80
Transportation and utilities	735	11.60
Shipping packers	175	6.27
Material handling laborers	560	13.27
Manufacturing	499	13.88
Nonmanufacturing	303	8.95
Transportation and utilities	168	8.85
Forklift operators	1,115	4.49
Manufacturing	1,064	4.44
Guards	1,014	4.38
Nonmanufacturing	983	4.32
Guards II	101	5.60
Nonmanufacturing	101	5.60
Janitors, porters, and cleaners	1,171	4.89
Manufacturing	104	6.93
Nonmanufacturing	1,067	4.69
Material movement and custodial occupations – women		
Truckdrivers	113	5.52
Nonmanufacturing	106	5.50
Truckdrivers, light truck	101	4.38
Nonmanufacturing	94	4.27
Shippers	41	6.46
Manufacturing	42	6.77
Shippers and receivers	40	6.78
Manufacturing	55	6.62
Shipping packers	344	4.34
Guards	335	4.29
Nonmanufacturing	319	4.25
Guards I	313	4.22
Nonmanufacturing	708	4.64
Janitors, porters, and cleaners	31	6.23
Manufacturing	677	4.57
Nonmanufacturing		

See footnotes at end of tables.

Table A-7. Indexes of earnings and percent increases for selected occupational groups, Salt Lake City-Ogden, UT, selected periods

Period[1]	All industries					Manufacturing					Nonmanufacturing			
	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Skilled maintenance	Unskilled plant	Office clerical	Electronic data processing	Industrial nurses	Unskilled plant
Indexes (November 1977 = 100):														
November 1986	188.1	198.1	(*)	172.4	161.4	(*)	(*)	(*)	184.1	175.6	187.2	201.8	(*)	158.2
November 1988	198.4	212.2	(*)	179.8	172.9	(*)	(*)	(*)	196.1	190.4	197.1	216.7	(*)	169.1
Percent increases:														
November 1972 to November 1973	5.5	(*)	(*)	9.7	6.5	(*)	(*)	(*)	7.0	5.8	5.6	(*)	(*)	6.7
November 1973 to November 1974	9.9	9.3	(*)	11.9	10.3	(*)	(*)	(*)	15.0	9.9	9.6	9.3	(*)	10.4
November 1974 to November 1975	9.0	8.1	(*)	9.2	7.7	7.8	(*)	(*)	9.3	8.0	9.5	7.9	(*)	7.6
November 1975 to November 1976	8.1	6.7	(*)	8.6	9.9	8.9	(*)	(*)	9.3	10.3	7.9	6.4	(*)	9.9
November 1976 to November 1977	7.4	9.5	(*)	7.4	8.0	7.4	(*)	(*)	6.8	6.5	7.5	9.7	(*)	7.8
November 1977 to November 1978	8.2	6.3	(*)	9.1	10.0	9.1	(*)	(*)	9.4	7.3	7.9	6.5	(*)	10.8
November 1978 to November 1979	9.4	10.6	(*)	10.4	11.2	9.9	(*)	(*)	10.4	7.8	9.1	10.7	(*)	12.0
November 1979 to November 1980	11.5	11.3	(*)	12.1	11.8	10.5	(*)	(*)	12.0	11.1	11.9	12.0	(*)	12.0
November 1980 to November 1981	9.8	9.7	(*)	9.5	8.1	9.1	(*)	(*)	10.8	12.5	10.0	10.7	(*)	7.0
November 1981 to November 1982	7.3	11.9	(*)	5.3	3.9	8.1	(*)	(*)	6.5	6.7	7.0	13.1	(*)	3.0
November 1982 to November 1983	5.6	7.5	(*)	2.8	0.5	6.8	9.3	(*)	5.1	4.0	5.2	6.8	(*)	-.2
November 1983 to November 1984	5.5	4.4	(*)	3.0	1.8	4.9	4.2	(*)	4.5	2.5	5.7	4.5	(*)	1.6
November 1984 to November 1985	4.2	5.4	(*)	3.1	2.8	3.6	6.5	(*)	2.9	4.4	4.5	5.1	(*)	2.5
November 1985 to November 1986	4.2	4.2	(*)	1.5	-.1	(*)	4.1	(*)	2.1	2.3	3.9	4.2	(*)	-.6
24-month increase	5.5	7.1	(*)	4.3	7.1	(*)	6.0	(*)	6.5	8.4	5.3	7.4	(*)	6.9
Annual rate of increase	2.7	3.5	(*)	2.1	3.5	(*)	3.0	(*)	3.2	4.1	2.6	3.6	(*)	3.4

See footnotes at end of tables.

Table A-8. Pay relationships in establishments with paired office clerical occupations, Salt Lake City-Ogden, UT, November 1988

Occupation for which earnings are compared	Occupation for which average earnings equal 100																			
	Secretaries				Typists		Word processors		Key entry operators		Accounting clerks			Payroll clerks	File clerks	Messengers	Order clerks		Receptionists	Switchboard operators	Switchboard operator-receptionists
	I	II	III	IV	I	II	I	II	I	II	II	III	IV		I		I	II			
Secretaries I	100	86	81	62	115	(*)	(*)	(*)	100	92	97	76	(*)	87	(*)	(*)	(*)	(*)	(*)	(*)	122
Secretaries II	116	100	84	72	(*)	(*)	(*)	(*)	121	105	109	85	(*)	91	(*)	(*)	(*)	(*)	135	114	118
Secretaries III	123	119	100	82	135	(*)	115	125	125	112	124	108	99	110	170	161	137	111	137	142	138
Secretaries IV	163	139	122	100	158	(*)	(*)	129	(*)	118	145	126	109	135	(*)	(*)	(*)	142	164	159	178
Typists I	87	(*)	74	53	100	(*)	83	(*)	102	(*)	89	65	(*)	70	(*)	(*)	(*)	(*)	(*)	(*)	90
Typists II	(*)	(*)	(*)	(*)	(*)	100	(*)	(*)	(*)	(*)	90	(*)	(*)	80	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Word processors I	(*)	(*)	87	(*)	121	(*)	100	76	(*)	(*)	98	(*)	(*)	93	(*)	(*)	(*)	(*)	(*)	116	114
Word processors II	(*)	(*)	80	78	(*)	(*)	131	100	121	(*)	107	98	89	92	(*)	(*)	(*)	(*)	108	(*)	110
Key entry operators I	100	83	80	(*)	98	(*)	(*)	82	100	85	89	(*)	(*)	86	(*)	(*)	105	(*)	95	(*)	104
Key entry operators II	108	95	89	85	(*)	(*)	(*)	(*)	118	100	101	91	79	103	(*)	(*)	(*)	(*)	(*)	(*)	106
Accounting clerks II	103	92	81	69	112	112	102	93	112	99	100	78	80	94	153	129	120	102	(*)	123	114
Accounting clerks III	132	117	93	78	154	(*)	(*)	102	(*)	110	129	100	85	105	176	(*)	(*)	(*)	133	141	148
Accounting clerks IV	(*)	(*)	101	92	(*)	(*)	(*)	112	(*)	126	125	117	100	125	(*)	(*)	(*)	(*)	(*)	140	161
Payroll clerks	116	110	91	74	143	126	108	108	114	97	106	95	80	100	160	124	132	94	119	124	123
File clerks I	(*)	(*)	59	(*)	(*)	(*)	(*)	(*)	(*)	(*)	65	57	(*)	63	100	(*)	(*)	(*)	(*)	(*)	90
Messengers	(*)	(*)	62	(*)	(*)	(*)	(*)	(*)	(*)	(*)	78	(*)	(*)	81	(*)	100	(*)	(*)	(*)	(*)	(*)
Order clerks I	(*)	(*)	73	(*)	(*)	(*)	(*)	(*)	95	(*)	83	(*)	(*)	75	(*)	(*)	100	(*)	(*)	(*)	103
Order clerks II	(*)	(*)	90	70	(*)	(*)	(*)	(*)	(*)	(*)	98	(*)	(*)	107	(*)	(*)	(*)	100	(*)	(*)	128
Receptionists	(*)	74	73	61	(*)	(*)	(*)	92	105	(*)	(*)	75	(*)	84	(*)	(*)	(*)	(*)	100	97	(*)
Switchboard operators	(*)	86	70	63	(*)	(*)	86	(*)	(*)	(*)	82	71	71	80	(*)	(*)	(*)	(*)	(*)	100	(*)
Switchboard operator-recaphonists	82	85	72	56	111	(*)	87	91	96	94	87	68	62	81	111	(*)	97	78	(*)	(*)	100

NOTE: This matrix table shows the average (mean) relationship of earnings in establishments between any two occupations compared. Earnings for an occupation in the table stub are expressed as a percent of the earnings for an occupation in the column heading at the point where the data lines for the two intersect. For example, reading across the Secretaries II row, the 116 in the Secretaries I column indicates that Secretaries II average 116 percent of (or 16 percent more than) the earnings of Secretaries I.

See appendix A for method of computation.

Also see footnotes at end of tables.

Table A-9. Pay relationships in establishments with paired professional and technical occupations, Salt Lake City-Ogden, UT, November 1988

Occupation for which earnings are compared	Occupation for which average earnings equal 100													
	Computer systems analysts			Computer programmers			Computer operators			Drafters		Electronics technicians		
	I	II	III	I	II	III	I	II	III	III	IV	I	II	III
Computer systems analysts I	**100**	83	66	147	110	85	195	177	145	146	(*)	165	119	97
Computer systems analysts II	121	**100**	83	169	137	120	260	222	191	171	(*)	213	139	111
Computer systems analysts III	152	121	**100**	234	158	(*)	290	251	212	201	(*)	241	178	137
Computer programmers I	68	59	43	**100**	74	58	159	124	106	(*)	(*)	(*)	(*)	(*)
Computer programmers II	91	73	63	135	**100**	82	201	164	146	139	(*)	(*)	119	97
Computer programmers III	118	84	(*)	173	122	**100**	247	205	175	149	(*)	156	131	96
Computer operators I	51	39	35	63	50	41	**100**	82	(*)	(*)	(*)	(*)	(*)	38
Computer operators II	57	45	40	81	61	49	121	**100**	85	75	(*)	103	83	59
Computer operators III	69	52	47	95	69	57	(*)	117	**100**	99	81	110	96	67
Drafters III	69	58	50	(*)	72	67	(*)	133	101	**100**	75	(*)	88	67
Drafters IV	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	124	134	**100**	(*)	(*)	(*)
Electronics technicians I	61	47	42	(*)	(*)	64	(*)	98	91	(*)	(*)	**100**	80	65
Electronics technicians II	84	72	56	(*)	84	77	(*)	121	104	114	(*)	124	**100**	76
Electronics technicians III	103	90	73	(*)	103	104	266	188	150	150	(*)	154	131	**100**

See table A-8 for description of these pay relationships and appendix A for method of computation.
Also see footnotes at end of tables.

Table A-10. Pay relationships in establishments with paired maintenance, toolroom, and powerplant occupations, Salt Lake City-Ogden, UT, November 1988

Occupation for which earnings are compared	Occupation for which average earnings equal 100						
	Carpenters	Electricians	Machinists	Maintenance mechanics (machinery)	Motor vehicle mechanics	Maintenance workers (general)	Tool and die makers
Maintenance carpenters	**100**	92	96	(*)	96	168	(*)
Maintenance electricians	108	**100**	100	105	104	127	94
Maintenance machinists	104	100	**100**	104	106	120	89
Maintenance mechanics (machinery)	(*)	96	96	**100**	99	127	88
Motor vehicle mechanics	104	96	95	101	**100**	130	(*)
General maintenance workers	60	79	84	79	77	**100**	69
Tool and die makers	(*)	106	112	114	(*)	145	**100**

See table A-8 for description of these pay relationships and appendix A for method of computation.
Also see footnotes at end of tables.

Table A-11. Pay relationships in establishments with paired material movement and custodial occupations, Salt Lake City-Ogden, UT, November 1988

Occupation for which earnings are compared	Occupation for which average earnings equal 100														
	Truckdrivers				Shippers	Receivers	Shippers and receivers	Warehouse-men	Order fillers	Shipping packers	Material handling laborers	Forklift operators	Guards		Janitors, porters, and cleaners
	Light truck	Medium truck	Heavy truck	Tractor-trailer									I	II	
Truckdrivers, light truck	**100**	90	(*)	66	(*)	98	(*)	94	86	(*)	(*)	96	(*)	(*)	109
Truckdrivers, medium truck	112	**100**	(*)	(*)	94	103	(*)	107	(*)	130	(*)	(*)	(*)	(*)	130
Truckdrivers, heavy truck	(*)	(*)	**100**	100	(*)	(*)	(*)	122	(*)	(*)	(*)	(*)	(*)	(*)	132
Truckdrivers, tractor-trailer	153	(*)	100	**100**	(*)	101	128	119	109	(*)	105	106	(*)	(*)	127
Shippers	(*)	106	(*)	(*)	**100**	107	(*)	114	(*)	120	(*)	(*)	(*)	(*)	135
Receivers	102	97	(*)	99	93	**100**	(*)	120	122	115	120	102	(*)	83	121
Shippers and receivers	(*)	(*)	(*)	78	(*)	(*)	**100**	(*)	(*)	(*)	131	99	(*)	(*)	130
Warehousemen	106	93	82	84	88	83	(*)	**100**	(*)	108	126	82	132	(*)	114
Order fillers	116	(*)	(*)	92	(*)	82	(*)	(*)	**100**	(*)	(*)	85	(*)	(*)	103
Shipping packers	(*)	77	(*)	(*)	83	87	(*)	92	(*)	**100**	106	88	(*)	(*)	107
Material handling laborers	(*)	(*)	(*)	95	(*)	83	76	79	(*)	94	**100**	91	(*)	(*)	121
Forklift operators	104	(*)	(*)	95	(*)	98	101	122	118	113	110	**100**	(*)	(*)	113
Guards I	(*)	(*)	(*)	(*)	(*)	(*)	(*)	76	(*)	(*)	(*)	(*)	**100**	(*)	123
Guards II	(*)	(*)	(*)	(*)	(*)	120	(*)	(*)	(*)	(*)	(*)	(*)	(*)	**100**	(*)
Janitors, porters, and cleaners	92	77	76	79	74	83	77	88	97	94	82	88	82	(*)	**100**

See table A-8 for description of these pay relationships and appendix A for method of computation.
Also see footnotes at end of tables.

Table B-1. Minimum entrance salaries for inexperienced typists and clerks in Salt Lake City-Ogden, UT, November 1988

Minimum weekly straight-time salary[1]	Inexperienced typists					Other inexperienced clerical workers[2]				
	All industries	Manufacturing		Nonmanufacturing		All industries	Manufacturing		Nonmanufacturing	
		All schedules	40 -hour schedules	All schedules	40 -hour schedules		All schedules	40 -hour schedules	All schedules	40 -hour schedules
Establishments studied	180	64	(*)	116	(*)	180	64	(*)	116	(*)
Establishments having a specified minimum	34	11	11	23	21	68	23	23	45	42
$130 and under $135	2	-	-	2	2	4	-	-	4	4
$135 and under $140	-	-	-	-	-	-	-	-	-	-
$140 and under $145	-	-	-	-	-	3	-	-	3	3
$145 and under $150	-	-	-	-	-	-	-	-	-	-
$150 and under $155	-	-	-	-	-	2	-	-	2	1
$155 and under $160	-	-	-	-	-	1	-	-	1	1
$160 and under $165	2	-	-	2	2	4	1	1	3	3
$165 and under $170	-	-	-	-	-	-	-	-	-	-
$170 and under $175	-	-	-	-	-	3	-	-	3	3
$175 and under $180	-	-	-	-	-	2	2	2	-	-
$180 and under $185	3	1	1	2	2	10	3	3	7	7
$185 and under $190	1	1	1	-	-	4	1	1	3	3
$190 and under $195	2	1	1	1	1	6	2	2	4	4
$195 and under $200	2	-	-	2	1	2	-	-	2	1
$200 and under $210	7	2	2	5	5	10	4	4	6	5
$210 and under $220	3	1	1	2	2	3	3	3	-	-
$220 and under $230	2	1	1	1	1	4	2	2	2	2
$230 and under $240	2	1	1	1	1	2	1	1	1	1
$240 and under $250	5	3	3	2	2	5	3	3	2	2
$250 and under $260	1	-	-	1	-	-	-	-	-	-
$260 and under $270	-	-	-	-	-	-	-	-	-	-
$270 and under $280	1	-	-	1	1	2	1	1	1	1
$280 and under $290	-	-	-	-	-	1	-	-	1	1
$290 and over	1	-	-	1	1	-	-	-	-	-
Establishments having no specified minimum	11	3	(*)	8	(*)	16	5	(*)	11	(*)
Establishments which did not employ workers in this category	135	50	(*)	85	(*)	96	36	(*)	60	(*)

See footnotes at end of tables.

Table B-2. Late-shift pay provisions for full-time manufacturing production and related workers in Salt Lake City-Ogden, UT, November 1988

(All full-time manufacturing production and related workers = 100 percent)

Item	Workers in establishments with late-shift provisions[10]		Workers on late shifts	
	Second shift	Third shift	Second shift	Third shift
Total workers (in percent)	84.4	58.9	20.1	7.4
With no pay differential for late-shift work	11.8	4.3	1.4	.2
With pay differential for late-shift work	72.6	54.7	18.7	7.2
Uniform cents-per-hour differential	61.2	41.3	15.7	5.1
Uniform percentage differential	11.2	11.2	3.0	1.7
Other differential	.2	2.2	–	.3
By type and amount of pay differential:				
Uniform cents per hour:				
10 cents	5.0	–	1.1	–
15 cents	12.2	5.4	4.3	.1
20 and under 21 cents	20.9	8.5	5.5	.7
21 cents	.9	.9	.2	–
22 cents	2.2	–	.3	–
24 cents	1.0	–	.2	–
25 cents	7.3	–	1.2	–
30 cents	6.4	7.0	1.5	.4
35 cents	–	6.4	–	1.8
40 cents	–	1.0	–	.2
45 cents	2.5	3.8	.7	.5
46 cents	–	2.5	–	.5
50 cents	.6	1.3	–	[11]
70 cents	–	2.5	–	.7
76 cents	1.7	–	.6	–
83 cents	–	1.7	–	.1
100 cents	.5	–	.2	–
120 cents	–	.5	–	–
Uniform percentage:				
5 percent	3.8	–	1.0	–
8 percent	1.2	–	.3	–
10 percent	6.2	8.7	1.6	1.6
15 percent	–	2.0	–	.1
20 percent	–	.5	–	–
Average pay differential (in cents or percent):				
Uniform cents-per-hour differential	23.5	35.4	23.7	40.1
Uniform percentage differential	8.1	11.3	8.1	10.4

See footnotes at end of tables.

Table B-3. Scheduled weekly hours and days of full-time first-shift workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time day-shift workers (in percent)	100	100	100	100	100	100	100	100
Scheduled to work:								
20 hours—5 days	(1)	–	1	–	–	–	–	–
25 hours—5 days	1	–	2	–	–	–	–	–
30 hours—5 days	1	–	3	–	–	–	–	–
32 hours—5 days	(1)	–	1	–	–	–	–	–
36.25 hours—5 days	(1)	1	–	–	–	–	–	–
37.5 hours—5 days	2	–	3	–	–	–	–	–
38.75 hours—5 days	–	–	–	–	2	–	3	–
40 hours	94	99	89	100	1	–	1	–
4 days	1	2	–	–	97	100	96	100
4.5 days	–	–	–	–	(1)	1	–	–
5 days	93	97	89	100	(1)	–	(1)	–
45 hours—5 days	1	–	2	–	96	99	95	100
Average weekly schedule (in hours)	39.6	40.0	39.3	40.0	39.9	40.0	39.9	40.0

See footnotes at end of tables.

Table B-4. Annual paid holidays for full-time workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time workers (in percent)	100	100	100	100	100	100	100	100
In establishments not providing paid holidays	3	–	6	–	(1)	–	(1)	–
In establishments providing paid holidays	97	100	94	100	99	100	99	100
Number of holidays:								
2 holidays	(1)	–	1	–	(1)	–	(1)	–
5 holidays	3	–	5	–	(1)	–	(1)	–
6 holidays	5	4	5	2	4	(1)	5	16
7 holidays	24	9	37	(1)	11	4	13	(1)
Plus 2 half days	(1)	–	(1)	–	(1)	–	(1)	–
8 holidays	12	18	7	4	9	9	8	3
Plus 1 half day	(1)	–	(1)	–	(1)	–	(1)	–
Plus 2 half days	(1)	–	(1)	(1)	(1)	–	(1)	2
9 holidays	11	11	10	16	9	9	9	22
10 holidays	22	33	14	39	18	27	15	25
11 holidays	13	17	9	28	29	43	24	28
Plus 1 half day	–	–	–	–	1	–	1	–
12 holidays	6	8	3	10	5	7	5	4
13 holidays	1	–	2	–	14	–	19	–
Total paid holiday time[2]:								
2 days or more	97	100	94	100	99	100	99	100
5 days or more	96	100	93	100	99	100	99	100
6 days or more	93	100	88	100	99	100	99	100
7 days or more	89	96	82	98	96	99	95	84
8 days or more	64	87	45	97	85	96	81	84
9 days or more	52	69	38	93	76	86	73	81
10 days or more	41	58	28	77	67	77	63	57
11 days or more	19	25	14	38	49	50	48	31
11.5 days or more	6	8	5	10	20	7	24	4
12 days or more	6	8	5	10	19	7	24	4
13 days	1	–	2	–	14	–	19	–
Average number of paid holidays where provided (in days)	8.8	9.4	8.2	10.1	10.1	10.2	10.0	9.4

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time workers (in percent)	100	100	100	100	100	100	100	100
In establishments not providing paid vacations	2	-	4	-	-	-	-	-
In establishments providing paid vacations	98	100	96	100	100	100	100	100
Length-of-time payment	94	97	91	85	99	100	99	95
Percentage payment	4	3	5	15	1	-	1	4
Other payment	(12)	-	(13)	(13)	(13)	-	(13)	(13)
By vacation pay provisions for[14]:								
6 months of service:								
Under 1 week	5	8	3	1	6	4	6	20
1 week	25	21	28	66	53	35	60	58
Over 1 and under 2 weeks	5	10	(13)	1	5	3	5	6
2 weeks	(13)	-	(13)	-	1	-	1	2
1 year of service:								
Under 1 week	1	-	2	(13)	1	-		
1 week	56	50	61	30	19	23	1	(13)
Over 1 and under 2 weeks	2	3	(13)	1	3	-	18	10
2 weeks	37	42	32	68	72	76	4	16
Over 2 and under 3 weeks	1	2	(13)	1	4	(13)	71	68
3 weeks	-	-	-	-	(13)	-	5	6
Over 3 and under 4 weeks	1	2	-	-	(13)	1	(13)	-
4 weeks	-	-	-	-		-	-	-
2 years of service:								
Under 1 week	(13)	-	(13)	(13)	(13)	-	(13)	(13)
1 week	29	19	38	4	7	-	8	1
Over 1 and under 2 weeks	6	6	5	-	(13)	3	(13)	-
2 weeks	60	71	52	94	84	(13)	80	75
Over 2 and under 3 weeks	1	2	1	2	5	95	7	9
3 weeks	-	-	-	-	(13)	(13)	(13)	-
Over 3 and under 4 weeks	1	2	(13)	1	3	-	4	15
4 weeks	-	-	-	-	(13)	1	(13)	-
3 years of service:								
Under 1 week	(13)	-	(13)	(13)	(13)	-	(13)	(13)
1 week	4	1	6	4	1	-	1	1
Over 1 and under 2 weeks	3	-	5	-	(13)	(13)	(13)	-
2 weeks	87	95	80	84	88	-	85	71
Over 2 and under 3 weeks	3	2	3	11	6	98	8	12
3 weeks	1	-	1	-	1	1	1	-
Over 3 and under 4 weeks	1	2	(13)	1	3	-	4	15
4 weeks	-	-	-	-	(13)	1	(13)	-
4 years of service:								
Under 1 week	(13)	-	(13)	(13)	(13)	-	(13)	(13)
1 week	2	1	4	4	(13)	(13)	(13)	1
Over 1 and under 2 weeks	3	-	5	-	88	-	85	-
2 weeks	87	94	82	82	6	97	8	67
Over 2 and under 3 weeks	3	3	3	11	2	1	2	12
3 weeks	1	(13)	2	2	3	(13)	4	4
Over 3 and under 4 weeks	1	2	(13)	1	(13)	1	(13)	15
4 weeks	-	-	-	-		-		-

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Salt Lake City-Ogden, UT, November 1988 —Continued

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
5 years of service:								
Under 1 week	(12)	–	(12)	(12)	–	–	–	–
1 week	2	1	2	–	(12)	–	(12)	(12)
Over 1 and under 2 weeks	3	–	5	–	(12)	–	(12)	–
2 weeks	54	64	45	46	33	39	31	35
Over 2 and under 3 weeks	2	1	3	11	7	2	9	12
3 weeks	31	32	30	42	53	58	51	37
Over 3 and under 4 weeks	1	2	(12)	1	3	1	4	15
4 weeks	–	–	–	–	(12)	–	(12)	–
5 weeks	5	–	10	–	2	–	3	–
8 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	35	38	32	20	17	15	18	9
Over 2 and under 3 weeks	(12)	(12)	1	2	6	3	7	7
3 weeks	54	59	50	78	71	81	67	69
Over 3 and under 4 weeks	(12)	–	(12)	1	3	–	4	15
4 weeks	1	2	–	–	1	1	1	–
5 weeks	5	–	10	–	2	–	3	–
10 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	15	17	14	4	7	9	7	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	5	7
3 weeks	63	67	59	69	49	54	47	43
Over 3 and under 4 weeks	4	6	3	11	5	5	5	20
4 weeks	7	7	7	15	32	32	33	30
Over 4 and under 5 weeks	1	2	–	–	(12)	1	–	–
5 weeks	5	–	10	–	2	–	3	–
6 weeks	–	–	–	–	(12)	–	(12)	–
12 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	13	15	12	4	6	8	6	1
Over 2 and under 3 weeks	(12)	–	1	1	4	–	5	6
3 weeks	57	63	52	42	43	43	43	42
Over 3 and under 4 weeks	6	11	3	11	10	19	6	20
4 weeks	13	8	17	42	35	32	36	31
Over 4 and under 5 weeks	1	2	–	–	(12)	1	–	–
5 weeks	5	–	10	–	2	–	3	–
6 weeks	–	–	–	–	(12)	–	(12)	–
15 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	9	12	6	4	5	5	5	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	3	6
3 weeks	32	36	29	15	18	18	18	8
Over 3 and under 4 weeks	(12)	–	(12)	1	4	1	5	16
4 weeks	44	46	42	57	62	71	59	52
Over 4 and under 5 weeks	3	4	3	10	1	2	1	4
5 weeks	8	1	13	12	6	4	7	13
6 weeks	–	–	–	–	(12)	–	(12)	–

See footnotes at end of tables.

Table B-5. Paid vacation provisions for full-time workers in Salt Lake City-Ogden, UT, November 1988 —Continued

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
20 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	9	12	6	4	5	5	5	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	5	6
3 weeks	18	20	17	(12)	10	12	9	2
Over 3 and under 4 weeks	(12)	–	(12)	1	3	–	4	16
4 weeks	44	52	38	29	55	48	58	40
Over 4 and under 5 weeks	1	2	–	–	(12)	2	(12)	(12)
5 weeks	23	11	32	64	22	33	18	35
Over 5 and under 6 weeks	1	2	–	–	(12)	1	–	–
6 weeks	–	–	–	–		–	(12)	–
25 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	9	12	6	4	5	5	5	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	5	6
3 weeks	17	18	16	(12)	8	9	8	2
Over 3 and under 4 weeks	(12)	–	(12)	1	3	–	4	16
4 weeks	28	36	19	5	33	38	31	13
Over 4 and under 5 weeks	1	2	(12)	(12)	1	(12)	1	–
5 weeks	33	26	38	36	40	47	38	43
Over 5 and under 6 weeks	2	2	3	10	3	1	4	4
6 weeks	6	–	11	42	3	–	4	15
30 years of service:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	9	12	6	4	5	5	5	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	5	6
3 weeks	17	18	16	(12)	8	9	8	2
Over 3 and under 4 weeks	(12)	–	(12)	1	3	–	4	16
4 weeks	27	36	19	5	33	37	31	12
Over 4 and under 5 weeks	1	2	–	–	(12)	(12)	–	–
5 weeks	33	26	38	37	41	46	39	44
Over 5 and under 6 weeks	1	–	3	10	3	–	4	4
6 weeks	6	2	10	37	4	2	4	15
Over 6 and under 7 weeks	1	2	–	–	(12)	1	–	–
7 weeks	1	–	1	5	–	–	–	–
Maximum vacation available:								
1 week	2	1	2	–	(12)	–	(12)	–
2 weeks	9	12	6	4	5	5	5	1
Over 2 and under 3 weeks	(12)	–	(12)	1	4	–	5	6
3 weeks	17	18	16	(12)	8	9	8	2
Over 3 and under 4 weeks	(12)	–	(12)	1	3	–	4	16
4 weeks	27	36	19	5	33	37	31	12
Over 4 and under 5 weeks	1	2	–	–	(12)	(12)	–	–
5 weeks	33	26	38	37	41	46	39	44
Over 5 and under 6 weeks	1	–	3	10	3	–	4	4
6 weeks	6	2	10	37	4	2	4	15
7 weeks	1	–	1	5	–	–	–	–

See footnotes at end of tables.

Table B-6. Insurance, health, and retirement plans offered to full-time workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time workers (in percent)	100	100	100	100	100	100	100	100
In establishments offering at least one of the benefits shown below[15]	97	100	94	100	100	100	100	100
Life insurance	87	92	83	99	97	95	97	99
Noncontributory plans	66	70	64	72	83	81	84	81
Accidental death and dismemberment insurance	59	63	56	60	75	51	84	92
Noncontributory plans	46	47	45	56	61	36	71	91
Sickness and accident insurance or sick leave or both	88	91	85	95	96	99	94	84
Sickness and accident insurance	54	62	46	68	61	75	55	35
Noncontributory plans	41	44	38	67	55	64	51	35
Sick leave (full pay and no waiting period)	49	47	51	66	81	73	84	77
Sick leave (partial pay or waiting period)	22	15	28	17	9	9	9	4
Long-term disability insurance	33	40	27	70	53	55	52	72
Noncontributory plans	20	18	22	69	44	42	45	68
Hospitalization, surgical, and medical insurance	86	96	77	99	96	99	95	99
Noncontributory plans	47	49	47	70	42	59	35	71
Health maintenance organizations	61	68	55	62	80	88	77	61
Noncontributory plans	24	28	20	32	21	50	11	15
Dental care	84	84	84	99	94	95	94	97
Noncontributory plans	45	45	45	71	41	61	34	71
Vision care	45	46	43	65	44	35	47	46
Noncontributory plans	22	19	24	43	13	14	13	15
Alcohol and drug abuse treatment	67	78	58	94	69	88	62	75
Noncontributory plans	40	47	33	68	35	71	22	49
Hearing care	30	31	30	49	21	25	20	26
Noncontributory plans	12	8	15	33	7	8	6	3
Retirement plans[16]	76	82	71	83	89	91	88	72
Noncontributory plans	60	67	55	82	79	80	79	67
Pension	69	70	68	83	83	78	85	72
Noncontributory plans	54	58	51	82	74	67	76	67
Lump sum	29	44	17	19	47	70	39	39
Noncontributory plans	10	16	4	2	11	18	9	6
Other[17]	1	–	2	–	1	–	1	–
Noncontributory plans	1	–	2	–	1	–	1	–

See footnotes at end of tables.

Table B-7. Health plan participation by full-time workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time workers (in percent)	100	100	100	100	100	100	100	100
Participating in:								
Hospitalization, surgical, and medical insurance	60	58	61	88	60	63	59	87
Noncontributory plans	38	31	43	66	34	41	32	67
Health maintenance organizations	24	31	18	9	33	31	34	10
Noncontributory plans	7	15	1	2	5	16	2	1
Dental care	76	77	75	96	84	90	82	92
Noncontributory plans	44	44	44	71	41	61	34	70
Vision care	34	37	31	50	31	26	33	24
Noncontributory plans	21	18	23	43	13	12	13	15
Alcohol and drug abuse treatment	61	72	53	93	63	88	55	71
Noncontributory plans	39	47	33	68	35	71	21	49
Hearing care	22	24	21	34	13	17	11	5
Noncontributory plans	11	7	15	33	6	7	5	3

See footnotes at end of tables.

Table B-8. Other selected benefits for full-time workers in Salt Lake City-Ogden, UT, November 1988

Item	Production and related workers				Office workers			
	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities	All industries	Manufacturing	Nonmanufacturing	Transportation and utilities
All full-time workers (in percent)	100	100	100	100	100	100	100	100
In establishments providing:								
Severance pay	27	40	17	22	61	73	56	47
Supplemental unemployment benefits	(14)	–	(14)	1	(14)	–	(14)	(14)
Cost-of-living adjustments	5	3	6	23	6	–	8	27
Based on BLS Consumer Price Index	5	3	6	23	6	–	8	27
Other basis than BLS Consumer Price Index	–	–	–	–	–	–	–	–
Paid leave:								
Jury duty	84	84	85	94	95	97	94	83
Funeral	81	81	81	83	83	71	87	70
Military	36	46	28	64	63	71	60	64
Personal leave[15]	10	4	15	46	24	33	21	27
2 days	1	(14)	1	4	3	(14)	5	1
3 days	3	–	6	21	(14)	–	(14)	1
4 days	2	–	4	13	4	–	6	23
5 days	1	1	2	–	1	2	1	–
6 days	–	–	–	–	1	–	2	1
Variable or unspecified[16]	3	3	3	7	14	30	8	2
Average amount of paid personal leave in establishments providing uniform and specified benefits (in days)	3.6	5.0	3.5	3.3	3.7	4.7	3.6	3.9

See footnotes at end of tables.

Footnotes

Some of these standard footnotes may not apply to this bulletin.

[1] Standard hours reflect the workweek for which employees receive their regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates), and the earnings correspond to these weekly hours.

[2] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Also excluded are performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or year-end bonuses, and other nonproduction bonuses. Pay increases—but not bonuses—under cost-of-living allowance clauses, and incentive payments, however, are included.

[3] The mean is computed for each job by totaling the earnings of all workers and dividing by the number of workers. The median designates position—one-half of the workers receive the same as or more and one-half receive the same as or less than the rate shown. The middle range is defined by two rates of pay; one-fourth of the workers earn the same as or less than the lower of these rates and one-fourth earn the same as or more than the higher rate.

[4] Earnings data relate only to workers whose sex identification was provided by the establishment.

[5] Estimates for periods ending prior to 1976 relate to men only for skilled maintenance and unskilled plant workers. All other estimates relate to men and women.

[6] Data do not meet publication criteria or data not available.

[7] Formally established minimum regular straight-time hiring salaries that are paid for standard workweeks. Data are presented for all standard workweeks combined, and for the most common standard workweeks reported.

[8] Excludes workers in subclerical jobs such as messenger.

[9] Work schedules collected only for establishments reporting a formal minimum.

[10] Includes all production and related workers in establishments currently operating late shifts, and establishments whose formal provisions cover late shifts, even though the establishments were not currently operating late shifts.

[11] Less than 0.05 percent.

[12] Less than 0.5 percent.

[13] Full and half days are combined. For example, the proportion of workers receiving 10 or more days includes those receiving *at least* 10 full days, or 9 full days and 2 half days, or 8 full days and 4 half days, and so on.

[14] Payments other than "length of time" are converted to an equivalent time basis; for example, 2 percent of annual earnings was considered as 1 week's pay. Periods of service are chosen arbitrarily and do not necessarily reflect individual provisions for progression; for example, changes in proportions at 20 years include changes between 15 and 20 years. Estimates are cumulative. Thus, the proportion eligible for at least 3 weeks' pay for 20 years includes those eligible for at least 3 weeks' pay after fewer years of service.

[15] Estimates listed after type of benefit are for all plans for which at least a part of the cost is borne by the employer. "Noncontributory plans" include only those financed entirely by the employer. Excluded are legally required plans, such as workers' disability compensation, Social Security, and railroad retirement.

[16] Establishments providing more than one type of retirement plan (e.g., an annuity and a lump-sum payment) may cause the sums of the separate plans to be greater than the total for all retirement plans.

[17] "Other" retirement plans provide for a fixed number of payments (more than one) after which payments are discontinued.

[18] Plans intended for use as paid holidays, vacations, or sick leave are not reported as paid personal leave, but are reported as holidays, vacations, or sick leave in accordance with the intent of the plan.

[19] Variable plans include those that provide differing amounts of leave based on length of service; unspecified plans are formal plans with no specified limit.

Appendix A. Scope and Method of Survey

In January 1987, the Bureau began to phase in a new 90-area program to replace the 70-area program that had produced annual surveys since July 1974. When the new plan is fully implemented in 1990, 32 of the areas will be surveyed annually, and two groups of 29 areas will be surveyed in alternate years. (For a full discussion of the change, see Laura Scofea, "BLS Area Wage Survey Will Cover More Areas," *Monthly Labor Review*, June 1986, pp. 19-23.)

In each area surveyed,[1] the Bureau obtains wages and related benefits data from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Government operations and the construction and extractive industries are excluded. Small establishments—generally those with fewer than 50 employees—are excluded because they have few incumbents in the occupations studied. Appendix table 1 shows the number of establishments and workers estimated to be within the scope of this survey, as well as the number actually studied.

In the 32 areas surveyed annually, Bureau field representatives obtain data by personal visits at 3-year intervals. In intervening years, only information on employment and occupational earnings is collected by a combination of personal visit, mail questionnaire, and telephone interview from establishments participating in the previous survey.

In the two groups of 29 areas that are surveyed in alternate years, Bureau field representatives obtain data for a given area by personal visits if the previous data for the area were obtained primarily by mail and telephone. Thus, in a 4-year period, an area that was surveyed by personal visit the first year will have no survey in the second, a mail and telephone survey in the third, and none in the fourth. As with annual surveys, information on establishment practices and employee benefits is presented only for surveys conducted by personal visits; when information is collected primarily by mail and telephone, only information on employment and earnings is presented.

A sample of the establishments in the scope of the survey is selected for study prior to each personal visit survey. This sample, minus establishments which go out of business or are no longer within the industrial scope of the survey, is retained until the next personal visit survey is conducted. In most cases, establishments new to the area are not considered in the scope of the survey until the selection of a sample for a personal visit survey.

The sampling procedures involve detailed stratification by industry and numbe employees of all establishments within the scope of a survey. From this strati universe, a probability sample is selected, with each establishment having a prede mined chance of selection. To obtain optimum accuracy at minimum cost, a gre proportion of large than small establishments is selected. When data are combined, e establishment is weighted according to its probability of selection so that unbia estimates are generated. For example, if one out of four establishments is selected, given a weight of 4 to represent itself plus three others. If data are not available fo establishment originally selected, the weights of other similar establishments increased to account for the missing unit.

Occupations and earnings

Occupations selected for study are common to a variety of manufacturing nonmanufacturing industries, and are of the following types: (1) Office clerical; professional and technical; (3) maintenance, toolroom, and powerplant; and (4) mate movement and custodial. Occupational classification is based on a uniform set of descriptions designed to take account of interestablishment variation in duties wi the same job. Occupations selected for study are listed and described in appendi along with corresponding occupational codes and titles from the 1980 edition of *Standard Occupational Classification Manual*.

Unless otherwise indicated, the earnings data following the job titles are fo industries combined. Earnings data for some of the occupations listed and describe for some industry divisions within the scope of the survey, are not presented in th series tables because either (1) data were insufficient to provide meaningful statis results, or (2) there is a possibility of disclosure of individual establishment d Earnings data not shown separately for industry divisions are included in data fo industries combined.

Separate data for men and women are not presented when the number of workers identified by sex is 20 percent or more of the men or women identified in an occupat Likewise, data are not presented for an occupational level when the number of wor not identified by level is 20 percent or more of the number identified at that level. I are included in estimates for men and women combined or an overall occupation w sex or level identification is not available.

Occupational employment and earnings data are shown for full-time workers, i.e., those hired to work a regular weekly schedule. Earnings data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Also excluded are performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or year-end bonuses, and other nonproduction bonuses. Pay increases—but not bonuses— under cost-of-living allowance clauses, and incentive payments, however, are included. Weekly hours for office clerical and professional and technical occupations refer to the standard workweek (rounded to the nearest half hour) for which employees receive regular straight-time salaries (exclusive of pay for overtime at regular and/or premium rates). Average weekly earnings for these occupations are rounded to the nearest half dollar. Some A-series tables provide distributions of workers by earnings; changes in the size of earnings intervals are indicated by heavy vertical lines.

These surveys measure the level of occupational earnings in an area at a particular time. Changes in an occupational average over time reflect, in addition to earnings changes, factors such as changes in proportions of workers employed by high- or low-wage firms, or high-wage workers advancing to better jobs and being replaced by new workers at lower rates. Such shifts in employment could decrease an occupational average even though most establishments in an area increased wages since the last survey. Changes in earnings of occupational groups, shown in table A-7, are better indicators of wage trends than are earnings changes for individual jobs within the groups.

Average earnings reflect composite, areawide estimates. Industries and establishments differ in pay level and job staffing, and thus contribute differently to the estimates for each job. Pay averages may fail to reflect accurately the wage differential among jobs in individual establishments.

Average pay levels for men and women in selected occupations should not be assumed to reflect differences in pay of the sexes within individual establishments. Factors which may contribute to differences include progression within established rate ranges (only the rates paid incumbents are collected) and performance of specific duties within the general survey job descriptions. Job descriptions used to classify employees in these surveys usually are more generalized than those used in individual establishments and allow for minor differences among establishments in specific duties performed.

Occupational employment estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because occupational structures among establishments differ, estimates of occupational employment obtained from the sample of establishments studied serve only to indicate the relative importance of the jobs studied. These differences in occupational structure do not affect materially the accuracy of the earnings data.

Wage trends for selected occupational groups

Indexes in table A-7 measure wages at a given time expressed as a percent of wages during the base period. Subtracting 100 from the index yields the percent change in wages from the base period to the date of the index. The percent increases in table A-7 relate to wage changes between the indicated dates. Annual rates of increase, where shown, reflect the amount of increase for 12 months when the time span between surveys was other than 12 months. These computations are based on the assumption that wages increased at a constant rate between surveys.

The indexes and percent increases are based on changes in average hourly earnings of men and women in establishments reporting the jobs listed below in both the current and previous year (matched establishments). The data are adjusted to remove the effect on average earnings of employment shifts among establishments and turnover of establishments included in survey samples. The percent increases, however, are still affected by factors other than wage increases. Turnover may affect an establishment average for an occupation when workers are paid under plans providing a range of wage rates for individual jobs. In periods of increased hiring, for example, new employees may enter at the bottom of the range, depressing the average without a change in wage rates.

Occupations used to compute wage trends are:

Office clerical

Secretaries
Stenographers I and II
Typists I and II
Key entry operators I and II
Accounting clerks I, II, III, and IV
Payroll clerks
File clerks I, II, and III
Messengers
Order clerks I and II
Switchboard operators

Electronic data processing

Computer systems analysts
Computer programmers
Computer operators

Industrial nurses

Registered industrial nurses

Skilled maintenance

Carpenters
Electricians
Painters
Machinists
Mechanics (machinery)
Pipefitters
Motor vehicle mechanics
Tool and die makers

Unskilled plant

Janitors, porters, and cleaners
Material handling laborers

Percent changes for individual areas in the program are computed as follows:

1. Each occupation is assigned a weight based on its proportion of employment in the occupational group in the earlier of the two years being compared. If for example, 1,000 workers were reported in the skilled maintenance group in the earlier year and 200 of these workers were painters, the weight assigned to painters would be 0.20. Using a constant employment weight dampens the effect of employment shifts on wage change measures.
2. Average earnings are computed for each occupation for the 2 years being compared. Earnings are used only from matched establishments; that is, establishments that are in the survey both years.

3. Group averages are computed by multiplying the weight of each occupation (step 1) by the occupation's average earnings for each year (step 2). The products are totaled to obtain group averages.
4. The ratio of group averages for 2 consecutive years is computed by dividing the average for the current year by the average for the earlier year. The result—expressed as a percent—less 100 is the percent change.

Pay relationships in establishments

Tables A-8 through A-11 compare average pay of occupations in individual establishments. These comparisons, expressed as pay relatives (pay for one of the occupations equals 100), differ from comparisons of overall survey averages, such as those shown in tables A-1 through A-6. The latter reflect differences in contributions to the survey averages by establishments with disparate pay levels; the pay relative comparisons are not affected by such differences. The following procedures are used to compute relatives in tables A-8 through A-11.

1. Establishments employing workers in both of the paired occupations were identified.

2. Pay levels (averages) for the two occupations were weighted by the combined employment of both jobs to reflect each establishment's contribution to the totals used in this comparison.

3. The weighted pay levels of the two jobs were summed separately; each total was divided by the other and the quotients multiplied by 100 to produce the two pay relatives shown for each job pairing.

Establishment practices and employee benefits

The incidence of selected establishment practices and employee benefits is studied for full-time production and related workers and office workers. Production and related workers (referred to hereafter as production workers) include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, auxiliary production for plant's own use (e.g., powerplant),and recordkeeping and other services closely associated with the above production operations. (Cafeteria and route workers are excluded in manufacturing industries but included in nonmanufacturing industries.) In finance and insurance, no workers are considered to be production workers. Office workers include working supervisors and all nonsupervisory workers (including lead workers and trainees) performing clerical or related office functions in such departments as accounting, advertising, purchasing, collection, credit, finance, legal, payroll, personnel, sales, industrial relations, public relations, executive, drafting or transportation. Administrative, executive, professional, and part-time employees as well as construction workers utilized as a separate work force are excluded from both the production and office worker categories.

Minimum entrance salaries (table B-1). Minimum entrance salaries for office workers relate only to the establishments visited. Because of the optimum sampling techniques used and the probability that large establishments are more likely than small establishments to have formal entrance rates above the subclerical level, the table is more representative of policies in larger establishments.

Shift differentials–manufacturing (table B-2). Data were collected on policies of manufacturing establishments regarding pay differentials for production workers on late shifts. Establishments considered as having policies are those which (1) have provisions in writing covering the operation of late shifts, or (2) have operated late shifts at any time during the 12 months preceding a survey. When establishments have several differentials which vary by job, the differential applying to the majority of the production workers is recorded. When establishments have differentials which apply only to certain hours of work, the differential applying to the most common schedule is recorded.

For purposes of this study, a late shift is either a second (evening) shift which ends at or near midnight or a third (night) shift which starts at or near midnight.

Differentials for second and third shifts are summarized separately for (1) establishment policies (an establishment's differentials are weighted by all production workers in the establishment at the time of the survey) and (2) effective practices (an establishment's differentials are weighted by production workers employed on the specified shift at the time of the survey).

Scheduled weekly hours; paid holidays; paid vacations; insurance, health, and retirement plans; and other selected benefits. Provisions which apply to a majority of the production or office workers in an establishment are considered to apply to all production or office workers in the establishment; a practice or provision is considered nonexistent when it applies to less than a majority. Holidays, vacations, insurance and health plans, and "other selected benefits" (table B-8) are considered applicable to employees currently eligible for the benefits. Retirement plans are considered applicable to employees currently eligible for participation and also to those who will eventually become eligible.

Scheduled weekly hours and days (table B-3). Scheduled weekly hours and days refer to the number of hours and days per week which full-time first (day) shift workers are expected to work, whether paid for at straight-time or overtime rates.

Paid holidays (table B-4). Holidays are included if workers who are not required to work are paid for the time off and those required to work receive premium pay or compensatory time off. They are included only if they are granted annually on a formal basis (provided for in written form or established by custom). Holidays are included even though in a particular year they fall on a nonworkday and employees are not granted another day off. Paid personal holiday provisions, typically found in the automobile and related industries, are included as paid holidays.

Data are tabulated to show the percent of workers who (1) are granted specific numbers of whole and half holidays and (2) are granted specified amounts of total holiday time (whole and half holidays are aggregated).

Paid vacations (table B-5). Establishments report their method of calculating vacation pay (time basis, percent of annual earnings, flat-sum payment, etc.) and the amount of vacation pay granted. Only basic formal plans are reported. Vacation bonus plans, vacation-savings plans, and "extended" or "sabbatical" benefits beyond basic plans are excluded.

For tabulating vacation pay granted, all provisions are expressed on a time basis. Vacation pay calculated on other than a time basis is converted to its equivalent time period. Two percent of annual earnings, for example, is tabulated as 1 week's vacation pay.

Also, provisions after each specified length of service are related to all production or office workers in an establishment regardless of length of service. Vacation plans commonly provide for a larger amount of vacation pay as service lengthens. Counts of production or office workers by length of service were not obtained. The tabulations of vacation pay granted present, therefore, statistical measures of these provisions rather than proportions of workers actually receiving specific benefits.

Insurance, health, and retirement plans (table B-6). Insurance, health, and retirement plans include plans for which the employer pays either all or part of the cost. The benefits may be underwritten by an insurance company, paid directly by an employer or union, or provided by a health maintenance organization (HMO). Workers provided the option of an insurance plan or an HMO are reported under both types of plans. A plan is included even though a majority of the employees in an establishment do not choose to participate in it because they are required to bear part of its cost (provided the choice to participate is available to a majority). Legally required plans such as Social Security, railroad retirement, workers' disability compensation, and temporary disability insurance[2] are excluded.

Life insurance includes formal plans providing indemnity (usually through an insurance policy) in case of death of the covered worker.

Accidental death and dismemberment insurance is limited to plans which provide benefit payments in case of death or loss of limb or sight as a direct result of an accident.

Sickness and accident insurance includes only those plans which provide that predetermined cash payments be made directly to employees who lose time from work because of illness or injury, e.g., $50 a week for up to 26 weeks of disability.

Sick leave plans are limited to formal plans[3] which provide for continuing an employee's pay during absence from work because of illness. Data collected distinguish between (1) plans which provide full pay with no waiting period, and (2) plans which either provide partial pay or require a waiting period.

Long-term disability insurance plans provide payments to totally disabled employees upon the expiration of their paid sick leave and/or sickness and accident insurance, or after a predetermined period of disability (typically 6 months). Payments are made until the end of the disability, a maximum age, or eligibility for retirement benefits. Full or partial payments are almost always reduced by Social Security, workers' disability compensation, and private pension benefits payable to the disabled employee.

Hospitalization, surgical, and medical insurance plans provide at least partial payment for: 1) Hospital room charges; 2) inpatient surgery; and 3) doctors' fees for hospital, office, or home visits. These plans typically cover other expenses such as outpatient surgery and prescription drugs.

An HMO provides comprehensive medical care in return for pre-established fees. Unlike insurance, HMO's cover routine preventive care as well as care required because of an illness and do not have deductibles or coinsurance (although there may be small fixed copayments for selected services). HMO's may provide services through their own facilities; through contracts with hospitals, physicians, and other providers, such as individual practice associations (IPA's); or through a combination of methods.

Dental care plans provide at least partial payment for routine dental care, such as checkups and cleanings, fillings, and X-rays. Plans which provide benefits only for oral surgery or other dental care required as the result of an accident are not reported.

Vision care plans provide at least partial payment for routine eye examinations, eyeglasses, or both. Plans which provide benefits only for orthoptics or for eyeglasses resulting from an accident are not reported.

Alcohol and drug abuse treatment plans provide at least partial payment for institutional treatment (in a hospital or specialized facility) for addiction to alcohol or drugs.

Hearing care plans provide at least partial payment for hearing examinations, hearing aids, or both.

Retirement pension plans provide for regular payments to the retiree for life. Included are deferred profit-sharing plans which provide the option of purchasing a lifetime annuity. Lump-sum plans are defined as those providing for a single payment at retirement; "other" plans include those providing for a fixed number of payments (more than one) after which payments are discontinued.

Health plan participation (table B-7). Estimates are presented on the percent of production and office workers participating in hospitalization, surgical, and medical insurance, HMO's, dental, vision, alcohol and drug abuse treatment, and hearing plans. When an establishment was unable to supply the number of plan participants, approximations (imputations) were made, where possible, by using information from other establishments offering a similar plan. Imputations were never made for more than one-third of the production or clerical workers in an industry group (all industries, manufacturing, nonmanufacturing, and transportation and utilities); when imputations were made, they were usually for considerably less than one-third of the workers. Participation rates were estimated and published if participant numbers (including imputations) were available for 90 percent or more of the production or office workers in an industry group; consequently, a published estimate may not relate to a group total.

Other selected benefits (table B-8). Information on the incidence of severance pay, supplemental unemployment benefits, cost-of-living adjustments, jury-duty leave, funeral leave, military leave, and personal leave is presented in table B-8.

Severance pay plans provide one or a limited number of payments to employees permanently separated through no fault of their own for such reasons as technological change or closing or scaling down of a plant or department. Excluded are retirement, profit-sharing, or savings plans, or plans limited to workers separated without prior notice.

Supplemental unemployment benefits (SUB) relate to formal plans designed to supplement benefits paid under State unemployment insurance systems.

Cost-of-living adjustments relate to formal plans by which wage rates are adjusted periodically in keeping with changes in the BLS Consumer Price Index or some other measure.

Paid funeral and jury-duty leave[4] data relate to formal plans that provide at least partial payment for time lost as a result of attending funerals of specified family members, or serving as a juror.

Military leave relates to formal plans providing excused absence from work with full or partial pay while on annual training duty. Plans that provide paid leave only for *temporary emergency* duty are excluded.

Paid personal leave plans are designed to allow workers to be absent from work for a variety of personal reasons. Provisions intended for use as (or extension of) paid holidays, vacations, or sick leave are not reported as paid personal leave, but are reported as holidays, vacations, or sick leave in accordance with the intent of the provision.

Footnotes

[1] The Bureau also conducts more limited area studies in over 100 areas at the request of the Employment Standards Administration of the U.S. Department of Labor.

[2] Temporary disability insurance which provides benefits to covered workers disabled by injury or illness which is not work-connected is mandatory under State laws in California, New Jersey, New York, and Rhode Island. Establishment plans which meet only the legal requirements are excluded from these data, but those under which (1) employers contribute more than is legally required or (2) benefits exceed those specified in the State law are included. In Rhode Island, benefits are paid out of a State fund to which only employees contribute. In each of the other three States, benefits are paid either from a State fund or through a private plan.

State fund financing: In California, only employees contribute to the State fund; in New Jersey, employees and employers contribute; in New York, employees contribute up to a specified maximum and employers pay the difference between the employees' share and the total contribution required.

Private plan financing: In California and New Jersey, employees cannot be required to contribute more than they would if they were covered by the State fund; in New York, employees can agree to contribute more if the State rules that the additional contribution is commensurate with the benefit provided.

Federal legislation (Railroad Unemployment Insurance Act) provides temporary disability insurance benefits to railroad workers for illness or injury, whether work-connected or not. The legislation requires that employers bear the entire cost of the insurance.

[3] An establishment is considered as having a formal plan if it specifies at least the minimum number of days of sick leave available to each employee. Such a plan need not be written, but informal sick leave allowances determined on an individual basis are excluded.

[4] When paid jury-duty leave is required by law, as it is in Alabama, Nebraska, Tennessee, and parts of Florida and Massachusetts, plans are included only if the employer provides the employees with benefits exceeding legal requirements.

Appendix table 1. Establishments and workers within scope of survey and number studied in Salt Lake City-Ogden, UT,[1] November 1988

Industry division[2]	Minimum employment in establishments in scope of survey	Number of establishments		Workers in establishments				
		Within scope of survey[3]	Studied	Within scope of survey				Studied[4]
				Total[5]		Full-time production and related workers	Full-time office workers	
				Number	Percent			
All divisions	–	699	180	152,718	100	65,717	21,061	80,150
Manufacturing	100	214	64	49,445	32	29,747	5,064	27,728
Nonmanufacturing	–	485	116	103,273	68	35,970	15,397	52,422
Transportation, communication, and other public utilities[6]	100	62	26	24,716	16	9,546	3,899	17,878
Wholesale trade	50	53	12	6,883	5	(*)	(*)	2,520
Retail trade	100	155	24	40,713	27	(*)	(*)	17,951
Finance, insurance, and real estate	50	73	19	12,935	8	(*)	(*)	6,121
Services[7]	50	140	35	18,026	12	(*)	(*)	7,952

[1] The Salt Lake City-Ogden, UT Metropolitan Statistical Area, as defined by the Office of Management and Budget through October 1984, consists of Davis, Salt Lake, and Weber Counties. The "workers within scope of survey" estimates provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels since (1) planning of wage surveys requires establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

[2] The 1972 edition of the *Standard Industrial Classification Manual* was used to classify establishments by industry division. All government operations are excluded from the scope of the survey.

[3] Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of nonmanufacturing companies are considered as one establishment when located within the same industry division.

[4] Includes executive, professional, part-time, seasonal, and other workers excluded from the separate production and office categories.

[5] Abbreviated to "transportation and utilities" in the A- and B-series tables. Taxicabs and services incidental to water transportation are excluded.

[6] Separate data for this division are not presented in the A- and B-series tables, but the division is represented in the "all industries" and "nonmanufacturing" estimates.

[7] Hotels and motels; laundries and other personal services; business services; automobile repair, rental, and parking; motion pictures; nonprofit membership organizations (excluding religious and charitable organizations); and engineering and architectural services.

Appendix table 2. Percent of workers covered by labor-management agreements, Salt Lake City-Ogden, UT, November 1988

Industry division	Production and related workers	Office workers
All industries	18	9
Manufacturing	15	2
Nonmanufacturing	21	11
Transportation and utilities	56	44

NOTE: An establishment is considered to have a contract covering all production or office workers if a majority of such workers is covered by a labor-management agreement. Therefore, all other production or office workers are employed in establishments that either do not have labor-management contracts in effect, or have contracts that apply to fewer than half of their production or office workers. Estimates are not necessarily representative of the extent to which all workers in the area may be covered by the provisions of labor-management agreements, because small establishments are excluded and the industrial scope of the survey is limited.

Appendix table 3. Industrial composition in manufacturing, Salt Lake City-Ogden, UT, November 1988

(Percent of all manufacturing workers)

Machinery, except electrical	20
Office and computing machines	15
Transportation equipment	17
Aircraft and parts	13
Electric and electronic equipment	11
Electronic components and accessories	6
Food and kindred products	9
Instruments and related products	7
Medical instruments and supplies	7
Printing and publishing	6
Apparel and other textile products	5

NOTE: This information is based on estimates of total employment derived from universe materials compiled before actual survey.

Appendix B. Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field representatives in classifying into appropriate occupations workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This permits grouping of occupational wage rates representing comparable job content. Because of this emphasis on comparability of occupational content, the Bureau's job descriptions may differ significantly from those in use in individual establishments or those prepared for other purposes. In applying these job descriptions, the Bureau's field representatives are instructed to exclude working supervisors; apprentices; and part-time, temporary, and probationary workers. Handicapped workers whose earnings are reduced because of their handicap are also excluded. Learners, beginners, and trainees, unless specifically included in the job description, are excluded.

Listed below are three occupations for which new or revised descriptions or titles are being introduced in this survey:

Computer systems analyst
Computer programmer
Computer operator

In addition, the maintenance, toolroom, and powerplant descriptions have been modified so that workers performing maintenance services for establishments other than their employing establishment are not automatically excluded.

The titles and numerical codes below the job titles in this appendix are taken from the 1980 edition of the *Standard Occupational Classification Manual* (SOC) , issued by the U.S. Department of Commerce, Office of Federal Statistical Policy and Standards.

In general, the Bureau of Labor Statistics' occupational descriptions are much more specific than those found in the SOC manual. The BLS occupation, "Registered Industrial Nurse," for example, is limited to workers providing medical assistance and other related services (e.g., health education) to persons who are ill or become ill or suffer an injury in a factory or other establishment. The SOC occupation (code 29) includes a variety of registered nurses (e.g., school nurse, head nurse, general duty nurse, private duty nurse) that are excluded from the BLS description.

Thus, in comparing the results of this survey with other sources, factors such as differences in occupational definitions and survey scope should be taken into consideration.

Office

SECRETARY

(4622: Secretary)

Provides principal secretarial support in an office, usually to one individual, and, in some cases, also to the subordinate staff of that individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor and staff. Works fairly independently, receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and an understanding of the organization, programs, and procedures related to the work of the office.

Exclusions. Not all positions that are titled "secretary" possess the above characteristics. Examples of positions which are excluded from the definition are as follows:

a. Clerks or secretaries working under the direction of secretaries or administrative assistants as described in e;

b. Stenographers not fully performing secretarial duties;

c. Stenographers or secretaries assigned to two or more professional, technical, or managerial persons of equivalent rank;

d. Assistants or secretaries performing any kind of technical work, e.g., personnel, accounting, or legal work;

e. Administrative assistants or supervisors performing duties which are more difficult or more responsible than the secretarial work described in LR-1 through LR-4;

f. Secretaries receiving additional pay primarily for maintaining confidentiality of payroll records or other sensitive information;

g. Secretaries performing routine receptionist, typing, and filing duties following detailed instructions and guidelines; these duties are less responsible than those described in LR-1 below;

h. Trainees.

Classification by level. Secretary jobs which meet the required characteristics are matched at one of five levels according to two factors: (a) Level of the secretary's supervisor within the overall organizational structure, and (b) level of the secretary's responsibility. The table following the explanations of these factors indicates the level of the secretary for each combination of factors.

Level of Secretary's Supervisor (LS)

Secretaries should be matched at one of the three LS levels below best describing the organization of the secretary's supervisor.

LS-1

Organizational structure is not complex and internal procedures and administrative controls are simple and informal; supervisor directs staff through face-to-face meetings.

LS-2

Organizational structure is complex and is divided into subordinate groups that usually differ from each other as to subject matter, function, etc.; supervisor usually directs staff through intermediate supervisors; internal procedures and administrative controls are formal. An entire organization (e.g., division, subsidiary, or parent organization) may contain a variety of subordinate groups which meet the LS-2 definition. Therefore, it is not unusual for one LS-2 supervisor to report to another LS-2 supervisor.

The presence of subordinate supervisors does not by itself mean LS-2 applies, e.g., a clerical processing organization divided into several units, each performing very similar work, is placed in LS-1.

In smaller organizations or industries such as retail trade, with relatively few organizational levels, the supervisor may have an impact on the policies and major programs of the entire organization, and may deal with important outside contacts, as described in LS-3.

LS-3

Organizational structure is divided into two or more subordinate supervisory levels (of which at least one is a managerial level) with several subdivisions at each level. Executive's program(s) are usually interlocked on a direct and continuing basis with other major organizational segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls. Executive typically has: Financial decisionmaking authority for assigned program(s); considerable impact on the entire organization's financial position or image; and responsibility for, or has staff specialists in, such areas as personnel and administration for assigned organization. Executive plays an important role in determining the policies and major programs of the entire organization, and spends considerable time dealing with outside parties actively interested in assigned program(s) and current or controversial issues.

Level of Secretary's Responsibility (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor or staff, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at the level best describing their level of responsibility. When a position's duties span more than one LR level, the introductory paragraph at the beginning of each LR level should be used to determine which of the levels best matches the position. (Typically, secretaries performing at the higher levels of responsibility also perform duties described at the lower levels.)

LR-1

Carries out recurring office procedures independently. Selects the guideline or reference which fits the specific case. Supervisor provides specific instructions on new assignments and checks completed work for accuracy. Performs varied duties including or comparable to the following:

a. Responds to routine telephone requests which have standard answers; refers calls and visitors to appropriate staff. Controls mail and assures timely staff response; may send form letters;
b. As instructed, maintains supervisor's calendar, makes appointments, and arranges for meeting rooms;
c. Reviews materials prepared for supervisor's approval for typographical accuracy and proper format;
d. Maintains recurring internal reports, such as: Time and leave records, office equipment listings, correspondence controls, training plans, etc.;
e. Requisitions supplies, printing, maintenance, or other services. Types, takes and transcribes dictation, and establishes and maintains office files.

LR-2

Handles differing situations, problems, and deviations in the work of the office according to the supervisor's general instructions, priorities, duties, policies, and program goals. Supervisor may assist secretary with special assignments. Duties include or are comparable to the following:

a. Screens telephone calls, visitors, and incoming correspondence; personally responds to requests for information concerning office procedures; determines which requests should be handled by the supervisor, appropriate staff member, or other offices. May prepare and sign routine, nontechnical correspondence in own or supervisor's name;
b. Schedules tentative appointments without prior clearance. Makes arrangements for conferences and meetings and assembles established background materials, as directed. May attend meetings and record and report on the proceedings;
c. Reviews outgoing materials and correspondence for internal consistency and conformance with supervisor's procedures; assures that proper clearances have been obtained, when needed;
d. Collects information from the files or staff for routine inquiries on office program(s) or periodic reports. Refers nonroutine requests to supervisor or staff;
e. Explains to subordinate staff supervisor's requirements concerning office procedures. Coordinates personnel and administrative forms for the office and forwards for processing.

LR-3

Uses greater judgment and initiative to determine the approach or action to take in nonroutine situations. Interprets and adapts guidelines, including unwritten policies, precedents, and practices, which are not always completely applicable to changing situations. Duties include or are comparable to the following:

a. Based on a knowledge of the supervisor's views, composes correspondence on own initiative about administrative matters and general office policies for supervisor's approval;
b. Anticipates and prepares materials needed by the supervisor for conferences, correspondence, appointments, meetings, telephone calls, etc;, and informs supervisor on matters to be considered;
c. Reads publications, regulations, and directives and takes action or refers those that are important to the supervisor and staff;
d. Prepares special or one-time reports, summaries, or replies to inquiries, selecting relevant information from a variety of sources such as reports, documents, correspondence, other offices, etc., under general direction;
e. Advises secretaries in subordinate offices on new procedures; requests information needed from the subordinate office(s) for periodic or special conferences, reports, inquiries, etc. Shifts clerical staff to accommodate workload needs.

LR-4

Handles a wide variety of situations and conflicts involving the clerical or administrative functions of the office which often cannot be brought to the attention of the executive. The executive sets the overall objectives of the work. Secretary may participate in developing the work deadlines. Duties include or are comparable to the following:

a. Composes correspondence requiring some understanding of technical matters; may sign for executive when technical or policy content has been authorized;
b. Notes commitments made by executive during meetings and arranges for staff implementation. On own initiative, arranges for staff member to represent organization at conferences and meetings, establishes appointment priorities, or reschedules or refuses appointments or invitations;
c. Reads outgoing correspondence for executive's approval and alerts writers to any conflict with the file or departure from policies or executive's viewpoints; gives advice to resolve the problems;
d. Summarizes the content of incoming materials, specially gathered information, or meetings to assist executive; coordinates the new information with background office sources; draws attention to important parts or conflicts;
e. In the executive's absence, ensures that requests for action or information are relayed to the appropriate staff member; as needed, interprets request and helps implement action; makes sure that information is furnished in timely manner; decides whether executive should be notified of important or emergency matters.

Exclude secretaries performing any of the following duties:

Acts as office manager for the executive's organization, e.g., determines when new procedures are needed for changing situations and devises and implements alternatives; revises or clarifies procedures to eliminate conflict or duplication; identifies and resolves various problems that affect the orderly flow of work in transactions with parties outside the organization.

Prepares agenda for conferences; explains discussion topics to participants; drafts introductions and develops background information and prepares outlines for executive or staff member(s) to use in writing speeches.

Advises individuals outside the organization on the executive's views on major policies or current issues facing the organization; contacts or responds to contacts from high-ranking outside officials (e.g., city or State officials, members of Congress, presidents of national unions or large national or international firms, etc.) in unique situations. These officials may be relatively inaccessible, and each contact typically must be handled differently, using judgment and discretion.

Criteria For Matching Secretaries By Level

Level of Secretary's Supervisor	Level of Secretary's Responsibility			
	LR-1	LR-2	LR-3	LR-4
LS-1	I	II	III	IV
LS-2	I	III	IV	V
LS-3	I	IV	V	V

STENOGRAPHER

(4623: Stenographer)

Primary duty is to take dictation using shorthand, and to transcribe the dictation. May also type from written copy. May operate from a stenographic pool. May occasionally transcribe from voice recordings.

Excluded from this definition are:

a. Trainee positions not requiring a fully qualified stenographer;
b. Secretaries providing the principal secretarial support in an office and performing more responsible and discretionary tasks, as described in LR-1 through LR-4 in the secretary definition above;
c. Stenographers who take dictation involving the frequent use of a wide variety of technical or specialized vocabulary. Typically this kind of vocabulary cannot be learned in a relatively short period of time, e.g., a month or two;
d. Stenographers, such as shorthand reporters, who record material verbatim at hearings, conferences, or similar proceedings.

Stenographer I

Takes and transcribes dictation, receiving specific assignments along with detailed instructions on such requirements as form and presentation. The transcribed material is typically reviewed in rough draft, and the final transcription is reviewed for conformance with the rough draft. May maintain files, keep simple records, or perform other relatively routine clerical tasks.

Stenographer II

Takes and transcribes dictation determining the most appropriate format. Performs stenographic duties requiring significantly greater independence and responsibility than Stenographer I. Supervisor typically provides general instructions. Work requires a thorough working knowledge of general business and office procedures and of the specific business operations, organizations, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining follow-up files; assembling material for reports, memoranda, and letters; composing simple letters from general instructions; reading and routing incoming mail; answering routine questions, etc.

TYPIST

(4624: Typist)

Uses a manual, electric, or automatic typewriter to type various materials. Included are automatic typewriters that are used only to record text and update and reproduce previously typed items from magnetic cards or tape. May include typing of stencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping simple records, filing records and reports, or sorting and distributing incoming mail.

Excluded from this definition is work that involves:

a. Typing directly from spoken material that has been recorded on disks, cylinders, belts, tapes, or other similar media;
b. The use of varitype machines, composing equipment, or automatic equipment in preparing material for printing; and
c. Familiarity with specialized terminology in various keyboard commands to manipulate or edit the recorded text to accomplish revisions, or to perform tasks such as extracting and listing items from the text, or transmitting text to other terminals, or using "sort" commands to have the machine reorder material. Typically requires the use of automatic equipment which may be either computer linked or have a programmable memory so that material can be organized in regularly used formats or preformed paragraphs which can then be coded and stored for future use in letters or documents.

Typist I

Performs *one or more of the following:* Copy typing from rough or clear drafts; or routine typing of forms, insurance policies, etc.; or setting up simple standard tabulations; or copying more complex tables already set up and spaced properly.

Typist II

Performs *one or more of the following:* Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

WORD PROCESSOR

(4624: Typist)

Primary duty is to operate word-processing equipment to enter, store, retrieve, change, and present text or tabulations. Produces a variety of printed copy such as letters, documents, or reports. May enter regularly used formats or stored paragraphs that are organized and coded for future use. Recorded texts can be changed by rearranging paragraphs, replacing words, shifting lines, etc.

(Word-processing equipment typically has a full- or partial-page video-display screen (CRT) and a separate printer. The equipment may be integrated with a digital computer, have telecommunications capabilities, and also have capabilities for adding to or upgrading features. Automatic or electronic typewriters with limited text-editing capabilities, and often with single-line electronic display "windows," are not considered word-processing equipment.)

Excluded from this definition are:

a. Workers whose primary function is to enter a data base for purposes other than composition (see key entry operator);
b. Workers who use equipment and data base for purposes such as accounting, inventory control, sales, or original writing and editing;

c. Workers responsible for preparation of published reports, including page layout or selection of different type sizes.

Positions are classified into levels on the basis of the following definitions:

Word Processor I

Performs tasks requiring a knowledge of the word-processing equipment and familiarity with the formats and forms used in the establishment. Proficiency in grammar, spelling, and punctuation is also required to produce printed materials accurately. May refer problems to supervisor or higher level processor, or refer to operating manual.

Word Processor II

Work at this level requires considerable classroom or on-the-job training and may involve working directly with task originator rather than through supervisor. In addition to work assignments described for level I, duties include *one or more of the following:*

a. Uses the more sophisticated features of the equipment to carry out complex assignments, such as sorting, merging, and organizing text, or maintaining files;
b. Applies knowledge of specialized terminology or foreign language;
c. Tests new applications and procedures; or
d. Trains lower level processors.

KEY ENTRY OPERATOR

(4793: Data entry keyer)

Operates keyboard-controlled data entry device such as keypunch machine or key-operated magnetic tape or disk encoder to transcribe data into a form suitable for computer processing. Work requires skill in operating an alphanumeric keyboard and an understanding of transcribing procedures and relevant data entry equipment.

Positions are classified into levels on the basis of the following definitions:

Key Entry Operator I

Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

Key Entry Operator II

Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for level I.

NOTE: Excluded are operators above level II using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

ACCOUNTING CLERK

(4712: Bookkeeper and accounting and auditing clerk)

Performs one or more accounting tasks such as posting to registers and ledgers, balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Levels I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording of transactions and accounting information. Levels III and IV require a knowledge and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some jobs at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

Accounting Clerk I

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

Accounting Clerk II

Performs one or more routine accounting clerical operations, such as: Examining, verifying, and correcting accounting transactions to ensure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

Accounting Clerk III

Uses a knowledge of double entry bookkeeping in performing one or more of the following: Posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

Accounting Clerk IV

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: Reviews invoices and statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system.

NOTE: Excluded from level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

PAYROLL CLERK

(4713: Payroll and timekeeping clerk)

Performs the clerical tasks necessary to process payrolls and to maintain payroll records. Work involves *most of the following*: Processing workers' time or production records; adjusting workers' records for changes in wage rates, supplementary benefits, or tax deductions; editing payroll listings against source records; tracing and correcting errors in listings; and assisting in preparation of periodic summary payroll reports. In a nonautomated payroll system, computes wages. Work may require a practical knowledge of governmental regulations, company payroll policy, or the computer system for processing payrolls.

FILE CLERK

(4696: File clerk)

Files, classifies, and retrieves material in an established filing system. May perform clerical and manual tasks required to maintain files. Positions are classified into levels on the basis of the following definitions:

File Clerk I

Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; and may fill out withdrawal charge May perform simple clerical and manual tasks required to maintain and service files.

File Clerk II

Sorts, codes, and files unclassified material by simple (subject matter) headings or partly classified material by finer subheadings. Prepares simple related index and cross-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical tasks required to maintain and service files.

File Clerk III

Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

MESSENGER

(4745: Messenger)

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening mail, distributing mail on a regularly scheduled route or in a familiar area, and other minor clerical work. May deliver mail that requires some special handling, e.g., mail that is insured, registered, or marked for special delivery.

Excluded are positions which include any of the following as significant duties:

a. Operating motor vehicles;
b. Delivering valuables or security-classified mail when the work requires a continuing knowledge of special procedures for handling such items;
c. Weighing mail, determining postage, or recording and controlling registered, insured, and certified mail in the mail room;
d. Making deliveries to unfamiliar or widely separated buildings or points which are not part of an established route; or
e. Directing other workers.

ORDER CLERK

(4664: Order clerk)

Receives written or verbal customers' purchase orders for material or merchandise from customers or sales people. Work typically involves some combination of the following duties: Quoting prices; determining availability of ordered items and suggesting substitutes when necessary; advising expected delivery date and method of delivery; recording order and customer information on order sheets; checking order sheets for accuracy and adequacy of information recorded; ascertaining credit rating of customer; furnishing customer with acknowledgment of receipt of order; following up to see that order is delivered by the specified date or to let customer know of a delay in delivery; maintaining order file; checking shipping invoice against original order. *Exclude workers paid on a commission basis or whose duties include any of the following:* Receiving orders for services rather than for material or merchandise; providing customers with consultative advice using knowledge gained from engineering or extensive technical training; emphasizing selling skills; handling material or merchandise as an integral part of the job.

Positions are classified into levels according to the following definitions:

Order Clerk I

Handles orders involving items which have readily identified uses and applications. May refer to a catalog, manufacturer's manual, or similar document to insure that proper item is supplied or to verify price of ordered item.

Order Clerk II

Handles orders that involve making judgments such as choosing which specific product or material from the establishment's product lines will satisfy the customer's needs, or determining the price to be quoted when pricing involves more than merely referring to a price list or making some simple mathematical calculations.

RECEPTIONIST

(4645: Receptionist)

Greets visitors, determines nature of visits, and directs visitors to appropriate persons. Receptionist duties may also include providing information, making appointments, answering a telephone (other than switchboard or console), keeping a log of visitors, and issuing visitor passes. May also perform typing or other routine clerical duties which may occupy a major portion of time, and are usually performed at the reception desk.

This classification excludes workers operating a telephone switchboard or console, performing guard duties, or performing more difficult clerical duties.

SWITCHBOARD OPERATOR

(4732: Telephone operator)

Operates a telephone switchboard or console used with a private branch exchange (PBX) system to relay incoming, outgoing, and intrasystem calls. May provide information to callers, record and transmit messages, keep record of calls placed and toll charges. Besides operating a telephone switchboard or console, may also type or perform routine clerical work (typing or routine clerical work may occupy the major portion of the worker's time, and is usually performed while at the switchboard or console). Chief or lead operators in establishments employing more than one operator are excluded. For an operator who also acts as a receptionist, see Switchboard operator-receptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST

(4645: Receptionist)

At a single-position telephone switchboard or console, acts both as an operator—see Switchboard operator—and as a receptionist. Receptionist's work involves such duties as greeting visitors; determining nature of visitor's business and providing appropriate information; referring visitor to appropriate person in the organization or contacting that person by telephone and arranging an appointment; keeping a log of visitors.

Professional and Technical

NOTE: The following descriptions for computer systems analysts, programmers, and operators are derived from job descriptions developed for the National Survey of Professional, Administrative, Technical, and Clerical Pay (PATC). For the most part, they are comparable to the PATC descriptions for systems analysts and programmers levels I to IV and computer operators levels I to III. The level IV computer operator description is comparable to the combined levels IV, V, and VI PATC descriptions.

COMPUTER SYSTEMS ANALYST

(171:Computer systems analyst)

Analyzes business or scientific problems for resolution through electronic data processing. Gathers information from users, defines work problems, designs a system of computer programs and procedures to resolve the problems, and develops complete specifications (precise descriptions) to enable computer programmers to prepare required programs. May write the computer programs.

NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.

Excluded are:

a. Trainees who receive detailed directives and work plans, select authorized procedures for use in specific situations, and seek assistance for deviations and problems;
b. Positions which require a bachelor's degree in a specific scientific field (other than computer science); however, positions are potential matches where the required degree may be from any of several possible scientific fields;
c. Workers who primarily analyze and evaluate problems concerning computer equipment or its selection or utilization;
d. Computer systems analysts dealing primarily with system software which provides basic services for processing other work; however, positions matching this definition may develop a "total package" which includes not only analyzing work problems to be processed but also selecting the computer equipment and system software;
e. Top technical experts above level IV who develop broad unprecedented computer systems and/or conduct critical studies central to the success of large organizations having extensive technical or highly diversified computer requirements; and
f. Supervisors responsible for, or participating in hiring, firing, curtailing projects, reorganizing, or reallocating resources.

Positions are classified into levels on the basis of the following definitions:

Computer Systems Analyst I

Initial assignments are designed to expand practical experience in applying systems analysis techniques and procedures. Works independently carrying out factfinding and analysis of a single activity or routine problem. Applies established procedures where nature of system, feasibility, computer equipment, and programming language have already been decided. Adapts guides to specific situations. May solve routine user problems by modifying the existing system following clear precedents.

Supervisor defines objectives, priorities, and deadlines. Obtains advice where precedents are unclear or not available.

May direct technicians and others who assist in specific assignments.

Computer Systems Analyst II

Works independently developing or modifying a system of several varied sequences or formats where the nature of the system is predetermined. Recognizes probable interaction of related computer systems and predicts impact of a change in assigned system.

Typical duties include reviewing project proposals; gathering facts; analyzing data, preparing project synopses comparing alternatives; preparing specifications for programs; resolving processing problems; coordinating work with programmers; and orienting users.

Work requires competence in most phases of systems analysis and knowledge of system software and work processes.

May direct lower level analysts on assigned work. *OR*

Works on a segment of a complex data processing system as described for level III. Works independently on routine assignments and receives instruction and guidance on complex assignments.

Computer Systems Analyst III

Works independently maintaining and modifying complex systems or developing new subsystems. Systems typically input data from diverse sources and have multiple users.

Typical duties include guiding users in formulating requirements; analyzing project proposals; arbitrating conflicts between users; recommending optimum approach; and developing systems design. May serve as lead analyst directing and integrating the work of one or two lower level analysts.

Computer Systems Analyst IV

As a team or project leader, provides complete systems design in a highly complex area. The systems design establishes the framework from feasibility studies to post-implementation evaluation. May serve as the technical authority for a design area. At least one team member performs work at level III. *AND/OR*

As a staff specialist or consultant, resolves unique and unyielding systems problems using new technology. May be assisted on project by other analysts or technicians.

COMPUTER PROGRAMMER

(397:Programmer)

Converts specifications (precise descriptions) of business or scientific problems into a sequence of detailed instructions to solve the problems by digital computer. Draws program flow charts to describe the processing of data and develops the precise steps and processing logic which, when entered into the computer in coded language, cause the manipulation of data to achieve desired results. Tests and corrects programs and prepares instructions for operators who control the computer during production runs. Modifies programs to increase operating efficiency or to respond to changes in work processes; maintains records to document program development and revisions.

NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is the skill used to determine their pay.

Excluded are:

a. Positions which require a bachelor's degree in a specific scientific field (other than computer science); however, positions are potential matches where the required degree may be from any of several possible scientific fields;

b. Workers who primarily analyze and evaluate problems concerning computer equipment or its selection or utilization;

c. Computer programmers (e.g., systems programmers) dealing primarily with system software which provides basic services for processing other work; however, positions matching this definition may develop a "total package" which includes not only analyzing work problems to be processed but also selecting the computer equipment and system software;

d. Employees with significant responsibility for supervising workers other than programmers or functions other than computer programming;

e. Supervisors responsible for, or participating in hiring, firing, curtailing projects, reorganizing, or reallocating resources; and

f. Team leaders and consultants above level IV who define highly complex programming problems and direct the development of computer programs for their solution, *AND/OR*
Team leaders and consultants who design improvements for highly complex programming problems where few precedents exist.

Positions are classified into levels on the basis of the following definitions:

Computer Programmer I

Receives classroom and/or on-the-job training in computer programming concepts and requirements of the subject-matter field. Performs elementary programming tasks such as drawing flow charts, writing operator instructions, or coding and testing simple programs.

Detailed step-by-step instructions are given; work is closely monitored in progress and reviewed in detail upon completion. Deviations must be authorized by supervisor.

May perform routine programming tasks as described in level II under close supervision. Also may perform elementary factfinding concerning a specific work process.

Computer Programmer II

Maintains and modifies routine programs. Work progresses from initial assignments designed to develop competence to work requiring a knowledge of established procedures and data processing requirements. Typical tasks include amending flow charts; coding, testing, and documenting changes; and writing routine new programs.

May evaluate simple interrelationships in programs and obtain information from users to modify routine programs.

Assignments have clear-cut and complete specifications and the format of the final product is very similar to that of the inputs. Work is monitored in progress and reviewed upon completion.

Computer Programmer III

As a fully qualified computer programmer, develops, modifies, and maintains conventional programs. Uses standard procedures and detailed specifications to independently devise program logic (may include translating mathematical notation), modify interrelationship of files and records, diagnose and correct errors, test and document work, and write computer operator instructions. The programs developed are typically linked to several other programs, with a variety of input records and varied formats produced in the output.

In addition, may analyze a single activity or routine problem when the nature of the programs, feasibility, and type of computer language and equipment have already been determined. Completed work is reviewed for conformance to standards, timeliness, and efficiency. May also guide or instruct lower level programmers, technicians, and others who assist on assignments. *OR*

Under close supervision, works on complex programs as described in level IV.

Computer Programmer IV

As an expert programmer, independently develops, modifies, and maintains complex programs which produce several interrelated but different products. Programs use data from diverse sources and have multiple users. Tests, documents, and writes operating instructions for all work.

May perform programming analysis such as investigating the feasibility of developing alternate programs, assisting users in defining needs, or participating on an EDP and user team working on large and complicated programs.

Completed work is reviewed for timeliness, compatibility with other work, and effectiveness in meeting requirements. May function as team leader of a few lower level programmers or technicians on assigned work.

COMPUTER OPERATOR

(4612:Computer operator)

Monitors and operates the control console of either a main-frame digital computer or a group of mini-computers, in accordance with operating instructions, to process data. Work is characterized by the following:

- Studies operating instructions to determine equipment setup needed;
- Loads equipment with required items (tapes, cards, paper, etc.);
- Switches necessary auxiliary equipment into system;
- Starts and operates console;
- Diagnoses and corrects equipment malfunctions;
- Reviews error messages and makes corrections during operation or refers problems;
- Maintains operating record.

May test run new or modified programs and assist in modifying systems or programs. Included within the scope of this definition are fully qualified computer operators, trainees working to become fully qualified operators, and lead operators providing technical assistance to lower level positions.

Excluded are:

a. Workers operating small computer systems where there is little or no opportunity for operator intervention in program processing and few requirements to correct equipment malfunctions;
b. Peripheral equipment operators and remote terminal or computer operators who do not run the control console of either a main-frame digital computer or a group of mini-computers (see peripheral equipment operator); and
c. Workers using the computer for scientific, technical, or mathematical work when a knowledge of the subject matter is required.

Positions are classified into levels on the basis of the following definitions:

Computer Operator I

Receives on-the-job training in operating the control console (sometimes augmented by classroom training). Works under close personal supervision and is provided detailed written or oral guidance before and during assignments. As instructed, resolves common operating problems. May serve as an assistant operator working under close supervision or performing a portion of a more senior operator's work.

Computer Operator II

Processes scheduled routines which present few difficult operating problems (e.g., infrequent or easily resolved error conditions). In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure. May serve as an assistant operator, working under general supervision.

Computer Operator III

Processes a range of scheduled routines. In addition to operating the system and resolving common error conditions, diagnoses and acts on machine stoppage and error conditions not fully covered by existing procedures and guidelines (e.g., resetting switches and other controls or making mechanical adjustments to maintain or restore equipment operations). In response to computer output instructions or error conditions, may deviate from standard procedures if standard procedures do not provide a solution. Refers problems which do not respond to corrective procedures.

Computer Operator IV

Resolves a variety of nonstandard problems (e.g., frequent new programs, applications, and procedures). Problems may require unusual equipment connections and channel configurations. May also provide technical assistance to lower level operators and use knowledge of program languages, computer features, and software systems in assisting programmers, systems analysts, and other users in resolving problems. Completed work is usually submitted to users without supervisory review.

PERIPHERAL EQUIPMENT OPERATOR

(4613: Peripheral equipment operator)

Operates peripheral equipment which directly supports digital computer operations. Such equipment is uniquely and specifically designed for computer applications, but need not be physically or electronically connected to a computer. Printers, plotters, card read/punches, tape readers, tape units or drives, disk units or drives, and data display units are examples of such equipment.

The following duties characterize the work of a peripheral equipment operator:

a. Loading printers and plotters with correct paper; adjusting controls for forms, thickness, tension, printing density, and location; and unloading hard copy;
b. Labeling tape reels, disks, or card decks;
c. Checking labels and mounting and dismounting designated tape reels or disks on specified units or drives;
d. Setting controls which regulate operation of the equipment;
e. Observing panel lights for warnings and error indications and taking appropriate action;
f. Examining tapes, cards, or other material for creases, tears, or other defects which could cause processing problems.

This classification excludes workers (1) who monitor and operate a control console (see Computer operator) or a remote terminal, or (2) whose duties are limited to operating decollaters, bursters, separators, or similar equipment.

COMPUTER DATA LIBRARIAN

(4696: File clerk)

(4754: Stock and inventory clerk)

Maintains library of media (tapes, disks, cards, cassettes) used for automatic data processing applications. The following or similar duties characterize the work of a computer data librarian: Classifying, cataloging, and storing media in accordance with a standardized system; upon proper requests, releasing media for processing; maintaining records of releases and returns; inspecting returned media for damage or excessive wear to determine whether or not they need replacing. May perform minor repairs to damaged tapes.

DRAFTER

(372: Drafting occupation)

Performs drafting work requiring knowledge and skill in drafting methods, procedures, and techniques. Prepares drawings of structures, mechanical and electrical equipment, piping and duct systems and other similar equipment, systems, and assemblies. Uses recognized systems of symbols, legends, shadings, and lines having specific meanings in drawings. Drawings are used to communicate engineering ideas, designs, and information in support of engineering functions.

The following are excluded when they constitute the primary purpose of the job:

a. Design work requiring the technical knowledge, skill, and ability to conceive or originate designs;
b. Illustrating work requiring artistic ability;
c. Work involving the preparation of charts, diagrams, room arrangements, floor plans, etc.;
d. Cartographic work involving the preparation of maps or plats and related materials, and drawings of geological structures; and
e. Supervisory work involving the management of a drafting program or the supervision of drafters.

Positions are classified into levels on the basis of the following definitions:

Drafter I

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is spot-checked during progress and reviewed upon completion.

NOTE: Exclude drafters performing elementary tasks while receiving training in the most basic drafting methods.

Drafter II

Prepares drawings of simple, easily visualized parts of equipment from sketches or marked-up prints. Selects appropriate templates and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy.

Drafter III

Prepares various drawings of parts and assemblies, including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Work requires use of most of the conventional drafting techniques and a working knowledge of the terms and procedures of the industry. Familiar or recurring work is assigned in general terms; unfamiliar assignments include information on methods, procedures, sources of information, and precedents to be followed. Simple revisions to existing drawings may be assigned with a verbal explanation of the desired results; more complex revisions are produced from sketches which clearly depict the desired product.

Drafter IV

Prepares complete sets of complex drawings which include multiple views, detail drawings, and assembly drawings. Drawings include complex design features that require considerable drafting skill to visualize and portray. Assignments regularly require the use of mathematical formulas to compute weights, load capacities, dimensions, quantities of materials, etc. Working from sketches and verbal information supplied by an engineer or designer, determines the most appropriate views, detail drawings, and supplementary information needed to complete assignments. Selects required information from precedents, manufacturers' catalogs, and technical guides. Independently resolves most of the problems encountered. Supervisor or designer may suggest methods of approach or provide advice on unusually difficult problems.

NOTE: Exclude drafters performing work of similar difficulty to that described at this level but who provide support for a variety of organizations which have widely differing functions or requirements.

Drafter V

Works closely with design originators, preparing drawings of unusual, complex or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawings produced. Exercises independent judgment in selecting and interpreting data based on a knowledge of the design intent. Although working primarily as a drafter, may occasionally perform engineering design work in interpreting general designs prepared by others or in completing missing design details. May provide advice and guidance to lower level drafters or serve as coordinator and planner for large and complex drafting projects.

ELECTRONICS TECHNICIAN

(3711: Electrical and electronic engineering technologist and technician)
(615: Electrical and electronic equipment repairer)

Works on various types of electronic equipment and related devices by performing one or a combination of the following: Installing, maintaining, repairing, overhauling, troubleshooting, modifying, constructing, and testing. Work requires practical application of technical knowledge of electronics principles, ability to determine malfunctions, and skill to put equipment in required operating condition.

The equipment—consisting of either many different kinds of circuits or multiple repetition of the same kind of circuit—includes, but is not limited to, the following: (a) Electronic transmitting and receiving equipment (e.g., radar, radio, television, telephone, sonar, navigational aids), (b) digital and analog computers, and (c) industrial and medical measuring and controlling equipment.

This classification excludes repairers of such standard electronic equipment as common office machines and household radio and television sets; production assemblers and testers; workers whose primary duty is servicing electronic test instruments; technicians who have administrative or supervisory responsibility; and drafters, designers, and professional engineers.

Positions are classified into levels on the basis of the following definitions:

Electronics Technician I

Applies working technical knowledge to perform simple or routine tasks in working on electronic equipment, following detailed instructions which cover virtually all procedures. Work typically involves such tasks as: Assisting higher level technicians by performing such activities as replacing components, wiring circuits, and taking test

readings; repairing simple electronic equipment; and using tools and common test instruments (e.g., multimeters, audio signal generators, tube testers, oscilloscopes). Is not required to be familiar with the interrelationships of circuits. This knowledge, however, may be acquired through assignments designed to increase competence (including classroom training) so that worker can advance to higher level technician.

Receives technical guidance, as required, from supervisor or higher level technician. Work is typically spot-checked, but is given detailed review when new or advanced assignments are involved.

Electronics Technician II

Applies comprehensive technical knowledge to solve complex problems (i.e., those that typically *can* be solved solely by properly interpreting manufacturers' manuals or similar documents) in working on electronic equipment. Work involves: A familiarity with the interrelationships of circuits; and judgment in determining work sequence and in selecting tools and testing instruments, usually less complex than those used by the level III technician.

Receives technical guidance, as required, from supervisor or higher level technician, and work is reviewed for specific compliance with accepted practices and work assignments. May provide technical guidance to lower level technicians.

Electronics Technician III

Applies advanced technical knowledge to solve unusually complex problems (i.e., those that typically *cannot* be solved solely by reference to manufacturers' manuals or similar documents) in working on electronic equipment. Examples of such problems include location and density of circuitry, electromagnetic radiation. isolating malfunctions, and frequent engineering changes. Work involves: A detailed understanding of the interrelationships of circuits; exercising independent judgment in performing such tasks as making circuit analyses, calculating wave forms, tracing relationships in signal flow; and regularly using complex test instruments (e.g., dual trace oscilloscopes, Q-meters, deviation meters, pulse generators).

Work may be reviewed by supervisor (frequently an engineer or designer) for general compliance with accepted practices. May provide technical guidance to lower level technicians.

REGISTERED INDUSTRIAL NURSE

(29: Registered nurse)

A registered nurse gives nursing service under general medical direction to ill or injured employees or other persons who become ill or suffer an accident on the premises of a factory or other establishment. Duties involve *a combination of the following*: Giving first aid to the ill or injured; attending to subsequent dressing of employees' injuries; keeping records of patients treated; preparing accident reports for compensation or other purposes; assisting in physical examinations and health evaluations of applicants and employees; and planning and carrying out programs involving health education, accident prevention, evaluation of plant environment, or other activities affecting the health, welfare, and safety of all personnel. Nursing supervisors or head nurses in establishments employing more than one nurse are excluded.

Maintenance, Toolroom, and Powerplant

MAINTENANCE CARPENTER

(6422: Carpenter)

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, casings, and trim made of wood. Work involves *most of the following*: Planning and laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE ELECTRICIAN

(615: Electrical and electronic equipment repairer)
(6432: Electrician)

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy. Work involves *most of the following*: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; and using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE PAINTER

(6442: Painter, construction and maintenance)

Paints and redecorates walls, woodwork, and fixtures. Work *involves the following*: Knowledge of surface peculiarities and types of paint required for different applications; preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices; and applying paint with spray gun or brush. May mix colors, oils, white lead, and other paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MACHINIST

(613: Industrial machinery repairer)

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment. Work involves *most of the following*: Interpreting written instructions and specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining; knowledge of the working properties of the common metals; selecting

standard materials, parts, and equipment required for this work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

MAINTENANCE MECHANIC (MACHINERY)

(613: Industrial machinery repairer)

Repairs machinery or mechanical equipment. Work involves *most of the following*: Examining machines and mechanical equipment to diagnose source of trouble; dismantling or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items obtained from stock; ordering the production of a replacement part by a machine shop or sending the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a machinery maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose *primary duties* involve setting up or adjusting machines.

MAINTENANCE PIPEFITTER

(645: Plumber, pipefitter, and steamfitter)

Installs or repairs water, steam, gas, or other types of pipe and pipefittings. Work involves *most of the following*: Laying out work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machines; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. *Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.*

MILLWRIGHT

(6178: Millwright)

Installs new machines or heavy equipment, and dismantles and installs machines or heavy equipment when changes in plant layout are required. Work involves *most of the following*: Planning and laying out work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; aligning and balancing equipment; selecting standard tools, equipment, and parts to be used; and installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, the millwright's work normally requires a rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

MOTOR VEHICLE MECHANIC

(611: Vehicle and mobile equipment mechanic and repairer)

Repairs, rebuilds, or overhauls major assemblies of internal combustion automobiles, buses, trucks, or tractors. Work involves most of the following: Diagnosing the source of trouble and determining the extent of repairs required; replacing worn or broken parts such as piston rings, bearings, or other engine parts; grinding and adjusting valves; rebuilding carburetors; overhauling transmissions; and repairing fuel injection, lighting, and ignition systems. In general, the work of the motor vehicle mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

This classification does not include mechanics who repair customers' vehicles or who only perform minor repair and tuneup of motor vehicles. It does, however, include fully qualified journeymen mechanics even though most of their time may be spent on minor repairs and tuneups.

GENERAL MAINTENANCE WORKER

(6179: Mechanic and repairer, not elsewhere classified)

Performs general maintenance and repair of building structures and their mechanical, electrical, or sanitary systems. May also perform general maintenance and repair of machinery. Work requires a basic practical knowledge of several maintenance trades in order to perform most of the following: Keeping in good repair building woodwork; replacing electrical switches, fixtures, and motors; occasional painting or touching up of structure or equipment; repairing or replacing plumbing fixtures; and replacing broken window panes.

Excluded are positions requiring a formal apprenticeship or equivalent training in one or more crafts. Also excluded are workers participating in such a program.

MAINTENANCE TRADES HELPER

(863: Helper; mechanic and repairer)

(864: Helper; construction trades)

Assists one or more workers in the skilled maintenance trades by performing specific or general duties of lesser skill, such as keeping a worker supplied with materials and tools; cleaning working area, machine, and equipment; assisting journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade: In some trades the helper is confined to supplying, lifting, and holding materials and tools, and cleaning working areas; and in others he is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis.

MACHINE-TOOL OPERATOR (TOOLROOM)

(6813: Machinist)

(731-2: Metalworking and plasticworking machine setup operator)

Specializes in operating one or more than one type of machine tool (e.g., jig borer, grinding machine, engine lathe, milling machine) to machine metal for use in making or maintaining jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves*: Planning and performing difficult machining operations which require complicated setups or a high degree of accuracy; setting up machine tool or tools (e.g., install cutting tools and adjust guides, stops, working tables, and other controls to

handle the size of stock to be machined; determine proper feeds, speeds, tooling, and operation sequence or select those prescribed in drawings, blueprints, or layouts); using a variety of precision measuring instruments; making necessary adjustments during machining operation to achieve requisite dimensions to very close tolerances. May be required to select proper coolants and cutting and lubricating oils, to recognize when tools need dressing, and to dress tools. In general, the work of a machine-tool operator (toolroom) at the skill level called for in this classification requires extensive knowledge of machine-shop and toolroom practice usually acquired through considerable on-the-job training and experience.

For cross-industry wage study purposes, this classification does *not* include machine-tool operators (toolroom) employed in tool and die jobbing shops.

TOOL AND DIE MAKER

(6811: Tool and die maker)

Constructs and repairs jigs, fixtures, cutting tools, gauges, or metal dies or molds used in shaping or forming metal or nonmetallic material (e.g., plastic, plaster, rubber, glass). *Work typically involves*: Planning and laying out work according to models, blueprints, drawings, or other written or oral specifications; understanding the working properties of common metals and alloys; selecting appropriate materials, tools, and processes required to complete task; making necessary shop computations; setting up and operating various machine tools and related equipment; using various tool and die maker's handtools and precision measuring instruments; working to very close tolerances; heat-treating metal parts and finished tools and dies to achieve required qualities; fitting and assembling parts to prescribed tolerances and allowances. In general, the tool and die maker's work requires rounded training in machine-shop and toolroom practice usually acquired through formal apprenticeship or equivalent training and experience.

For cross-industry wage study purposes, this classification does *not* include tool and die makers who (1) are employed in tool and die jobbing shops or (2) produce forging dies (die sinkers).

STATIONARY ENGINEER

(6931: Stationary engineer)

Operates and maintains one or more systems such as heat, air-conditioning (cool, humidify, dehumidify, filter and circulate air), refrigeration, steam or high-temperature water, or electricity. Duties involve: Observing and interpreting readings on gauges, meters, and charts which register various aspects of the system's operation; adjusting controls to insure safe and efficient operation of the system and to meet demands for the service provided; recording in logs various aspects of the system's operation; keeping the engines, machinery, and equipment of the system in good working order. May direct and coordinate activities of other workers (not stationary engineers) in performing tasks directly related to operating and maintaining the system or systems.

The classification excludes head or chief engineers in establishments employing more than one engineer; workers required to be skilled in the repair of electronic control equipment; workers in establishments producing electricity, steam, or heated or cooled air primarily for sale; and boiler tenders.

Material Movement and Custodial

TRUCKDRIVER

(821: Motor vehicle operator)

Drives a truck within a city or industrial area to transport materials, merchandise, equipment, or workers between various types of establishments such as: Manufacturing plants, freight depots, warehouses, wholesale and retail establishments, or between retail establishments and customers' houses or places of business. May also load or unload truck with or without helpers, make minor mechanical repairs, and keep truck in good working order. *Salesroute and over-the-road drivers are excluded.*

For wage study purposes, truckdrivers are classified by type and rated capacity of truck, as follows:

Truckdriver, light truck
(straight truck, under 1 1/2 tons, usually 4 wheels)
Truckdriver, medium truck
(straight truck, 1 1/2 to 4 tons inclusive, usually 6 wheels)
Truckdriver, heavy truck
(straight truck, over 4 tons, usually 10 wheels)
Truckdriver, tractor-trailer

SHIPPER AND RECEIVER

(4753: Traffic, shipping and receiving clerk)

Performs *clerical and physical* tasks in connection with shipping goods of the establishment in which employed and receiving incoming shipments. In performing day-to-day, routine tasks, follows established guidelines. In handling unusual nonroutine problems, receives specific guidance from supervisor or other officials. May direct and coordinate the activities of other workers engaged in handling goods to be shipped or being received.

Shippers typically are responsible for most of the following: Verifying that orders are accurately filled by comparing items and quantities of goods gathered for shipment against documents; insuring that shipments are properly packaged, identified with shipping information, and loaded into transporting vehicles; preparing and keeping records of goods shipped, e.g., manifests, bills of lading.

Receivers typically are responsible for most of the following: Verifying the correctness of incoming shipments by comparing items and quantities unloaded against bills of lading, invoices, manifests, storage receipts, or other records; checking for damaged goods; insuring that goods are appropriately identified for routing to departments within the establishment; preparing and keeping records of goods received.

For wage study purposes, workers are classified as follows:

Shipper
Receiver
Shipper and receiver

WAREHOUSEMAN

(4754: Stock and inventory clerk)

As directed, performs a *variety* of *warehousing* duties which require an *understanding of the establishment's storage plan.* Work involves *most of the following*: Verifying materials (or merchandise) against receiving documents, noting and reporting discrepancies and obvious damages; routing materials to prescribed storage locations; storing,

stacking, or palletizing materials in accordance with prescribed storage methods; rearranging and taking inventory of stored materials; examining stored materials and reporting deterioration and damage; removing material from storage and preparing it for shipment. May operate hand or power trucks in performing warehousing duties.

Exclude workers whose *primary* duties involve shipping and receiving work (see Shipper and receiver and Shipping packer), order filling (see Order filler), or operating power trucks (see Power-truck operator).

ORDER FILLER

(4754: Stock and inventory clerk)

Fills shipping or transfer orders for finished goods from stored merchandise in accordance with specifications on sales slips, customers' orders, or other instructions. May, in addition to filling orders and indicating items filled or omitted, keep records of outgoing orders, requisition additional stock or report short supplies to supervisor, and perform other related duties.

SHIPPING PACKER

(8761: Hand packer and packager)

Prepares finished products for shipment or storage by placing them in shipping containers, the specific operations performed being dependent upon the type, size, and number of units to be packed, the type of container employed, and method of shipment. Work requires the placing of items in shipping containers and *may involve one or more of the following*: Knowledge of various items of stock in order to verify content; selection of appropriate type and size of container; inserting enclosures in container; using excelsior or other material to prevent breakage or damage; closing and sealing container; and applying labels or entering identifying data on container. *Packers who also make wooden boxes or crates are excluded.*

MATERIAL HANDLING LABORER

(8726: Freight, stock, and material mover, not elsewhere classified)

Performs physical tasks to transport or store materials or merchandise. Duties involve *one or more of the following:* Manually loading or unloading freight cars, trucks, or other transporting devices; unpacking, shelving, or placing items in proper storage locations; or transporting goods by handtruck, cart, or wheelbarrow.

Excluded from this definition are workers whose primary function involves:

a. Participating directly in the production of goods (e.g., moving items from one production station to another or placing them on or removing them from the production process);
b. Stocking merchandise for sale;
c. Counting or routing merchandise;
d. Operating a crane or heavy-duty motorized vehicle such as forklift or truck;
e. Loading and unloading ships (longshore workers); or
f. Traveling on trucks beyond the establishment's physical location to load or unload merchandise.

POWER-TRUCK OPERATOR

(8318: Industrial truck and tractor equipment operator)

Operates a manually controlled gasoline- or electric-powered truck or tractor to transport goods and materials of all kinds about a warehouse, manufacturing plant, or other establishment.

For wage study purposes, workers are classified by type of powertruck, as follows:

Forklift operator
Power-truck operator (other than forklift)

GUARD

(5144: Guard and police, except public service)

Protects property from theft or damage, or persons from hazards or interference. Duties involve serving at a fixed post, making rounds on foot or by motor vehicle, or escorting persons or property. May be deputized to make arrests. May also help visitors and customers by answering questions and giving directions.

Guards employed by establishments which provide protective services on a contract basis are included in this occupation.

For wage study purposes, guards are classified as follows:

Guard I

Carries out instructions primarily oriented toward insuring that emergencies and security violations are readily discovered and reported to appropriate authority. Intervenes directly only in situations which require minimal action to safeguard property or persons. Duties require minimal training. Commonly, the guard is not required to demonstrate physical fitness. May be armed, but generally is not required to demonstrate proficiency in the use of firearms or special weapons.

Guard II

Enforces regulations designed to prevent breaches of security. Exercises judgment and uses discretion in dealing with emergencies and security violations encountered. Determines whether first response should be to intervene directly (asking for assistance when deemed necessary and time allows), to keep situation under surveillance, or to report situation so that it can be handled by appropriate authority. Duties require specialized training in methods and techniques of protecting security areas. Commonly, the guard is required to demonstrate continuing physical fitness and proficiency with firearms or other special weapons.

JANITOR, PORTER, OR CLEANER

(5244: Janitor and cleaner)

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office, apartment house, or commercial or other establishment. Duties involve *a combination of the following*: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing metal fixtures or trimmings; providing supplies and minor maintenance services; and cleaning lavatories, showers, and restrooms. *Workers who specialize in window washing are excluded.*

Area Wage Survey Summaries

The following areas are surveyed periodically under contract to the Employment Standards Administration of the U.S. Department of Labor for its use in administering the Service Contract Act of 1965. Reports on the surveys shown below are available at no cost from any of the Bureau's regional offices while supplies last.

Alaska (statewide)
Albany, GA
Albany-Schenectady-Troy, NY
Albuquerque, NM
Alexandria-Leesville, LA
Alpena-Standish-Tawas City, MI
Ann Arbor, MI
Asheville, NC
Atlantic City, NJ
Augusta, GA-SC
Austin, TX[1]
Bakersfield, CA
Baton Rouge, LA
Battle Creek, MI
Beaumont-Port Arthur and Lake Charles, TX-LA
Biloxi-Gulfport and Pascagoula-Moss Point, MS
Binghamton, NY
Birmingham, AL
Bloomington-Vincennes, IN
Bremerton-Shelton, WA
Brunswick, GA
Cedar Rapids, IA
Champaign-Urbana-Rantoul, IL[1]
Charleston, SC[1]
Chattanooga, TN-GA
Cheyenne, WY
Clarksville-Hopkinsville, TN-KY
Colorado Springs, CO
Columbia-Sumter, SC
Columbus, GA-AL
Columbus, MS
Connecticut (statewide)
Dayton-Springfield, OH
Daytona Beach, FL
Decatur, IL[1]
Des Moines, IA
Dothan, AL
Duluth, MN-WI
El Paso-Las Cruces-Alamogordo, TX-NM
Eugene-Springfield-Medford-Roseburg-Klamath Falls-Grants Pass, OR
Fayetteville, NC
Fort Lauderdale-Hollywood-Pompano Beach and West Palm Beach-Boca Raton-Delray Beach, FL
Fort Smith, AR-OK
Fort Wayne, IN
Gadsden and Anniston, AL
Goldsboro, NC
Grand Island-Hastings, NE
Green Bay, WI[2]
Greensboro-Winston-Salem-High Point, NC[2]
Greenville-Spartanburg, SC
Harrisburg-Lebanon-Carlisle, PA
Jacksonville, FL
Knoxville, TN
LaCrosse-Sparta, WI
Laredo, TX
Las Vegas-Tonopah, NV
Lexington-Fayette, KY
Lima, OH
Little Rock-North Little Rock, AR
Logansport-Peru, IN
Lorain-Elyria, OH
Lower Eastern Shore, MD-VA-DE
Macon, GA
Madison, WI
Maine (statewide)
Manhattan-Junction City, KS
Mansfield, OH
McAllen-Edinburg-Mission and Brownsville-Harlingen, TX
Melbourne-Titusville-Palm Bay, FL
Meridian, MS
Montana (statewide)
Montgomery, AL
Nashville, TN
New Bern-Jacksonville, NC
New Hampshire (statewide)
Norfolk-Virginia Beach-Newport News, VA
North Dakota (statewide)
Northern New York
Northwest Texas
Northwestern Florida
Oklahoma City, OK
Orlando, FL[1]
Oxnard-Ventura, CA
Peoria, IL
Pine Bluff, AR
Portsmouth-Chillicothe-Gallipolis, OH
Poughkeepsie-Orange County-Kingston, NY
Providence, RI
Pueblo, CO
Puerto Rico
Raleigh-Durham, NC
Reno, NV
Riverside-San Bernardino, CA[1]
Salina, KS
Salinas-Seaside-Monterey, CA
Sandusky, OH
Santa Barbara-Santa Maria-Lompoc, CA
Savannah, GA
Selma, AL
Sherman-Denison, TX
Southeastern Massachusetts
South Dakota (statewide)
Southwest Virginia
Spokane, WA
Springfield, IL
Stockton, CA
Tacoma, WA
Topeka, KS
Tucson-Douglas, AZ
Tulsa, OK
Upper Peninsula, MI
Vallejo-Fairfield-Napa, CA
Vermont (statewide)
Virgin Islands of the U.S.
Waco and Killeen-Temple, TX
Waterloo-Cedar Falls, IA
West Virginia (statewide)
Western Massachusetts
Wichita, KS
Wichita Falls-Lawton-Altus, TX-OK
Yakima-Richland-Kennewick-Pasco-Walla Walla-Pendleton, WA-OR

ALSO AVAILABLE—

An annual report on salaries for such jobs as accountants, auditors, public accountants, chief accountants, attorneys, programmers and systems analysts, job analysts, directors of personnel, buyers, chemists, engineers, engineering technicians, drafters, computer operators, and clerical employees is available. Order as BLS Bulletin 2317, *National Survey of Professional, Administrative, Technical, and Clerical Pay: Private Nonservice Industries, March 1988* (Price $5), from: Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690, or Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

[1] In 1988, this area is scheduled to be surveyed under the Bureau's regular area wage survey program. See inside back cover.

[2] Scheduled to be surveyed in this program for the first time in 1988. In 1986, the area was surveyed under the Bureau's regular area wage survey program. See inside back cover.

U.S. Government Printing Office: 1988-261-386/80222